

Service Manual

PIONEER
The Art of Entertainment

DEH-P85DHR



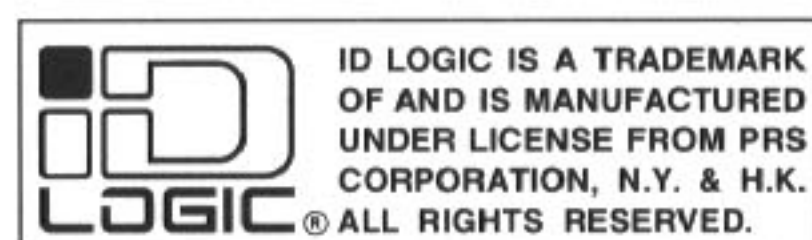
ORDER NO.
CRT1849

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH RDS/ID-LOGIC TUNER

DEH-P85DHR UC

MULTI-CD CONTROL HIGH POWER CD PLAYER WITH ID-LOGIC TUNER

DEH-P75DH UC



● CD Player Service Precautions

1. For pickup unit(CXX1230) handling, please refer to "Disassembly"(CX-597 Service Manual CRT1829). During replacement, handling precautions shall be taken to prevent an electrostatic discharge(Protection by a short pin).
2. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.

● See the separate manual CX-597(CRT1829) for the CD mechanism description, disassembly and circuit description.

● The CD mechanism employed in this model is one of CX-597 series.

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1. SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5). When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING

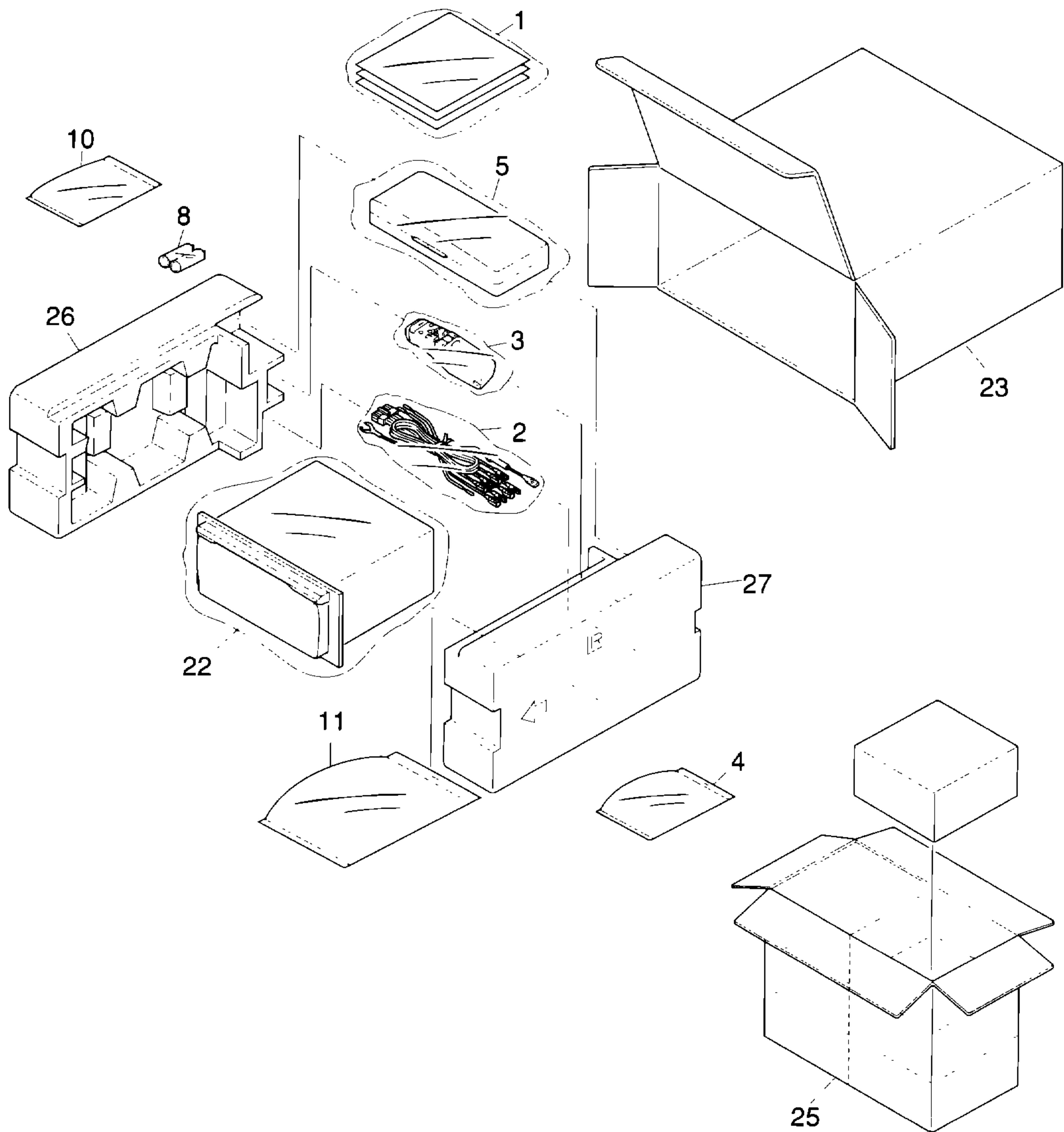


Fig. 1

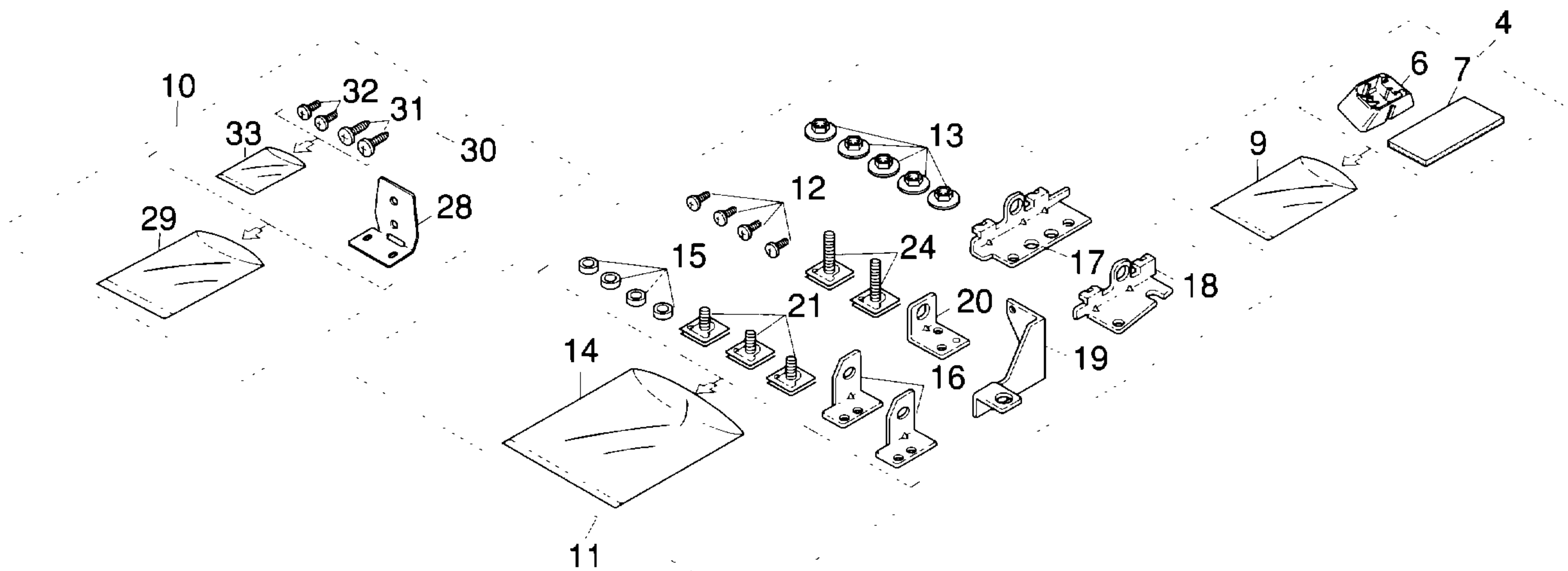


Fig. 2

NOTE:

- Parts marked by " *" are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ▼ mark on the product are used for disassembly.

(1)PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
* 1-1	Card	ARY1048	16	Bracket(x2)	CNC6767
1-2	Owner's Manual (English, French)	See Contrast table(2)	17	Bracket	CNC5506
1-3	Installation Manual (English, French)	CRD2362	18	Bracket	CNC5507
1-4	Polyethylene Bag	CEG1116	19	Bracket	CNC5686
2	Cord	CDE4670	20	Bracket	CNC5687
3	Remote Control Assy	CXB1160	21	Bolt Unit(x3)	CXA7960
4	Base Assy	CEA2344	22	Cover	CEG1228
5	Case Assy	CXB1415	23	Carton	See Contrast table(2)
* 6	Base	CZN6466	24	Bolt Unit(x2)	CXA7961
* 7	Sheet	CZN3371	25	Contain Box	See Contrast table(2)
8	Battery	CEX1006	26	Protector(L)	CHP1910
9	Polyethylene Bag	CZE3188	27	Protector(R)	CHP1911
* 10	Bracket Assy	CEA2346	* 28	Bracket	CZN6467
11	Accessory Assy	CEA2006	* 29	Polyethylene Bag	CZE3201
12	Screw(x4)	BSZ30P050FMC	30	Screw Assy	CZE3198
13	Nut(x5)	CBN1012	31	Screw(x2)	BNC40P120FZK
* 14	Polyethylene Bag	CEG1101	32	Screw(x2)	BPZ30P100FZK
15	Spacer(x4)	CLA2598	* 33	Polyethylene Bag	CEG-127

(2) CONTRAST TABLE

DEH-P85DHR/UC and DEH-P75DH/UC have the same construction except for the following:

Mark No.	Symbol & Description	Part No.	
		DEH-P85DHR/UC	DEH-P75DH/UC
1-2	Owner's Manual	CRD2246	CRD2248
23	Carton	CHG3203	CHG3204
25	Contain Box	CHL3203	CHL3204

2.2 EXTERIOR

● DEH-P85DHR

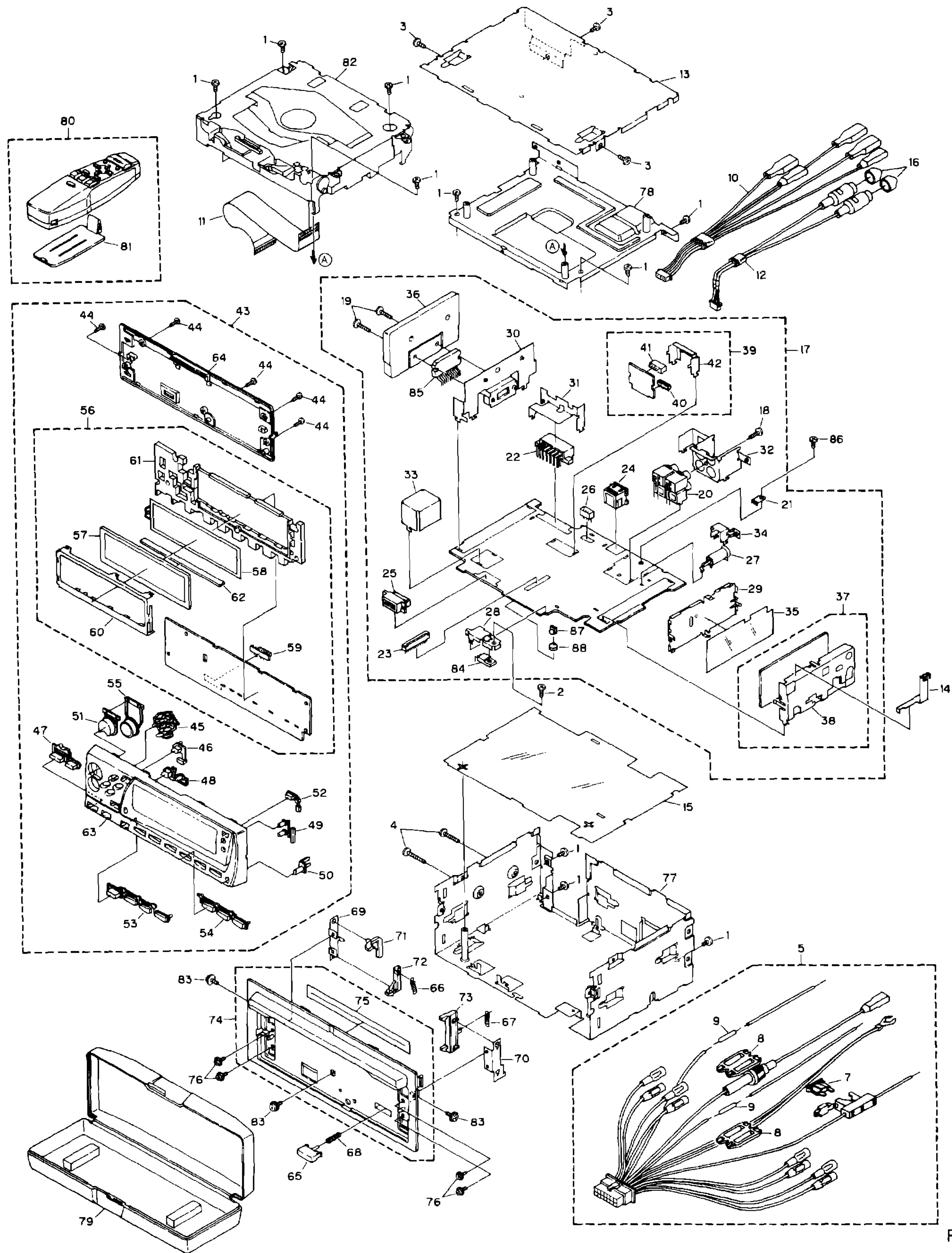


Fig. 3

● Parts List

Mark No.	Description	Part No.
1	Screw	BSZ26P060FMC
2	Screw	BSZ26P080FMC
3	Screw	BSZ30P050FMC
4	Screw	BSZ30P200FMC
5	Cord	CDE4670
6		
7	Fuse(10A)	CEK1136
8	Cap	CNS1472
9	Resistor	RS1/2PMF102J
10	Cord Assy	CDE5198
11	Cable	CDE5269
12	Cord Assy	CDE5297
13	Case	CNB2123
14	Holder	CNC7005
15	Insulator	CNM5076
16	Cap	CNV2680
17	Tuner Amp Unit	CWX2065
18	Screw	BPZ26P100FMC
19	Screw	BSZ26P160FMC
20	Pin Jack(CN251)	CKB1031
21	Terminal(CN504)	CKF1059
22	Plug(CN901)	CKM1204
23	Connector(CN651)	CKS2255
24	Connector(CN101)	CKS3408
25	Connector(CN801)	CKS3581
26	Connector(CN271)	CKS3584
27	Antenna Jack(CN503)	CKX1056
28	Holder	CNC5013
29	Holder	CNC6356
30	Holder	CNC6879
31	Holder	CNC6880
32	Holder	CNC7196
33	Holder	CNC6889
34	Holder	CNC7001
35	Insulator	CNM4684
36	Heat Sink	CNR1435
37	FM/AM Tuner Unit	CWE1472
38	Holder	CNC6554
39	Detach Alarm Unit	CWM5291
40	Plug(CN852)	CKS1617
41	Connector(CN851)	CKS3585
42	Holder	CNC6912
43	Detach Grille Assy	CXA9603
44	Screw	BPZ20P100FZK
45	Button	CAC4886

Mark No.	Description	Part No.
46	Button(FUNC)	CAC4887
47	Button(SOURCE)	CAC4888
48	Button(AUDIO)	CAC4889
49	Button(LOUD,CLOCK)	CAC4893
50	Button(DETACH)	CAC4894
51	Button(+)	CAC5053
52	Button(EJECT)	CAC5056
53	Button(1,2,3,DISP)	CAC5077
54	Button(4,5,6)	CAC5078
55	Button(-)	CAC5082
56	Key Board Unit	CWX2069
57	LCD	CAW1389
58	EL	CEL1488
59	Connector(CN1901)	CKS3580
60	Holder	CNC7198
61	Holder	CNV4772
62	Connector	CNV4791
63	Grille Unit	CXA9691
64	Cover Unit	CXA9713
65	Button	CAC5180
66	Spring	CBH1834
67	Spring	CBH1835
68	Spring	CBH1933
69	Bracket	CNC6135
70	Bracket	CNC6791
71	Arm	CNV4692
72	Arm	CNV4693
73	Arm	CNV4951
74	Panel Unit	CXA9695
75	Cover	CNM4875
76	Screw	IMS20P040FZK
77	Chassis Unit	CXA9714
78	Chassis Unit	CXA9718
79	Case Assy	CXB1415
80	Remote Control Assy	CXB1160
81	Battery Cover	CNS4406
82	CD Mechanism Module(S7)	CXK5001
83	Screw	ISS26P060FZK
84	Transistor(Q971)	2SD2396
85	IC(IC201)	TDA7384A
86	Screw	ISS26P060FMC
87	LED(D851)	BR4361F
88	Bush	CNV-724

DEH-P85DHR, P75DH

● DEH-P75DH

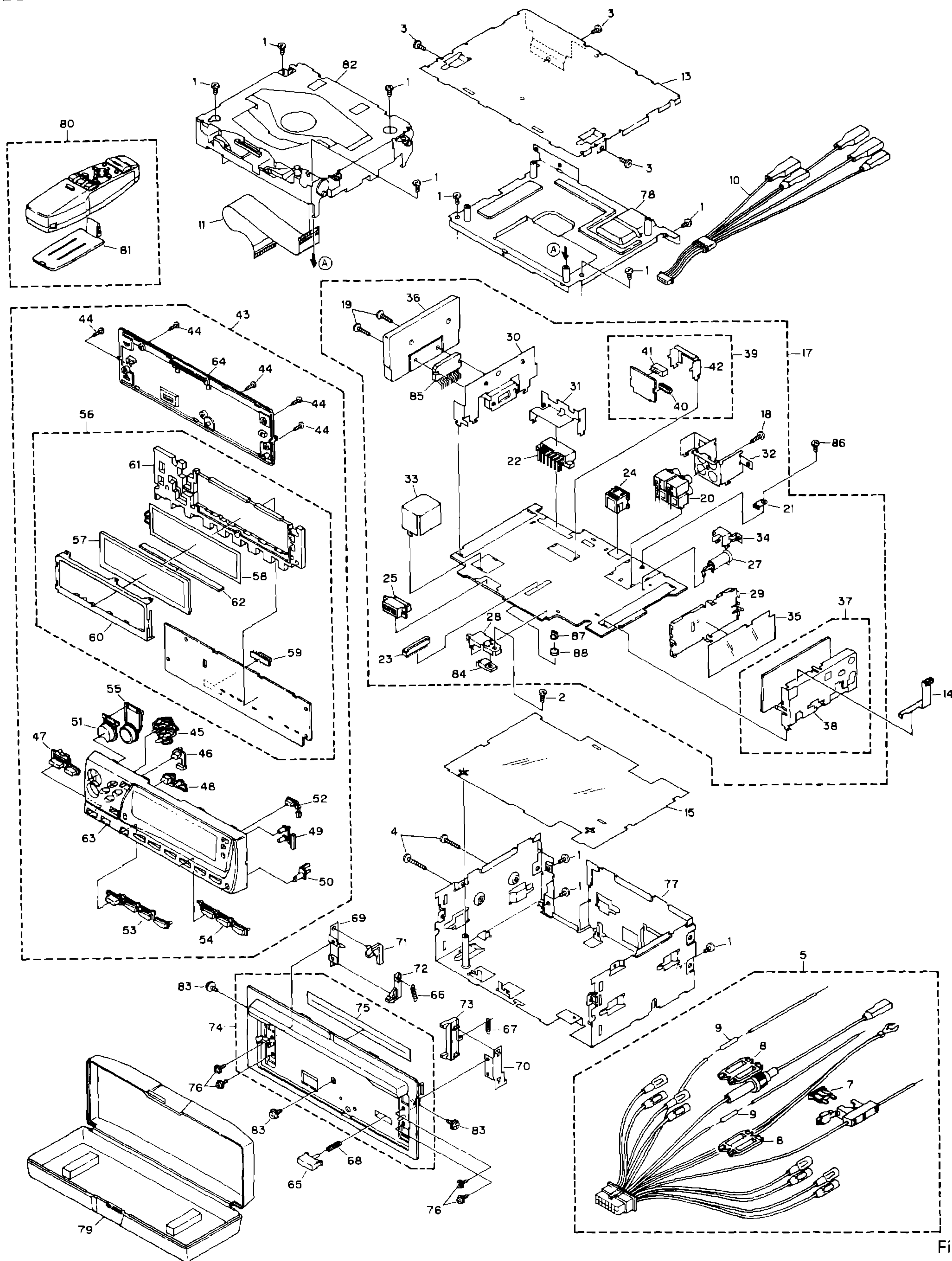


Fig. 4

● Parts List

Mark No.	Description	Part No.
1	Screw	BSZ26P060FMC
2	Screw	BSZ26P080FMC
3	Screw	BSZ30P050FMC
4	Screw	BSZ30P200FMC
5	Cord	CDE4670
6		
7	Fuse(10A)	CEK1136
8	Cap	CNS1472
9	Resistor	RS1/2PMF102J
10	Cord Assy	CDE5198
11	Cable	CDE5269
12		
13	Case	CNB2123
14	Holder	CNC7005
15	Insulator	CNM5076
16		
17	Tuner Amp Unit	CWX2066
18	Screw	BPZ26P100FMC
19	Screw	BSZ26P160FMC
20	Pin Jack(CN251)	CKB1031
21	Terminal(CN504)	CKF1059
22	Plug(CN901)	CKM1204
23	Connector(CN651)	CKS2255
24	Connector(CN101)	CKS3408
25	Connector(CN801)	CKS3581
26		
27	Antenna Jack(CN503)	CKX1056
28	Holder	CNC5013
29	Holder	CNC6356
30	Holder	CNC6879
31	Holder	CNC6892
32	Holder	CNC7196
33	Holder	CNC6889
34	Holder	CNC7001
35	Insulator	CNM4684
36	Heat Sink	CNR1435
37	FM/AM Tuner Unit	CWE1417
38	Holder	CNC6555
39	Detach Alarm Unit	CWM5291
40	Plug(CN852)	CKS1617
41	Connector(CN851)	CKS3585
42	Holder	CNC6912
43	Detach Grille Assy	CXA9604
44	Screw	BPZ20P100FZK
45	Button	CAC4886

Mark No.	Description	Part No.
46	Button(FUNC)	CAC4887
47	Button(SOURCE)	CAC4888
48	Button(AUDIO)	CAC4889
49	Button(LOUD,CLOCK)	CAC4893
50	Button(DETACH)	CAC4894
51	Button(+)	CAC5053
52	Button(EJECT)	CAC5056
53	Button(1,2,3,DISP)	CAC5054
54	Button(4,5,6)	CAC5055
55	Button(-)	CAC5082
56	Key Board Unit	CWX2070
57	LCD	CAW1390
58	EL	CEL1488
59	Connector(CN1901)	CKS3580
60	Holder	CNC7198
61	Holder	CNV4772
62	Connector	CNV4791
63	Grille Unit	CXA9692
64	Cover Unit	CXA9713
65	Button	CAC5180
66	Spring	CBH1834
67	Spring	CBH1835
68	Spring	CBH1933
69	Bracket	CNC6135
70	Bracket	CNC6791
71	Arm	CNV4692
72	Arm	CNV4693
73	Arm	CNV4951
74	Panel Unit	CXA9695
75	Cover	CNM4875
76	Screw	IMS20P040FZK
77	Chassis Unit	CXA9714
78	Chassis Unit	CXA9718
79	Case Assy	CXB1415
80	Remote Control Assy	CXB1160
81	Battery Cover	CNS4406
82	CD Mechanism Module(S7)	CXK5001
83	Screw	ISS26P060FZK
84	Transistor(Q971)	2SD2396
85	IC(IC201)	TDA7384A
86	Screw	ISS26P060FMC
87	LED(D851)	BR4361F
88	Bush	CNV-724

2.3 CD MECHANISM MODULE

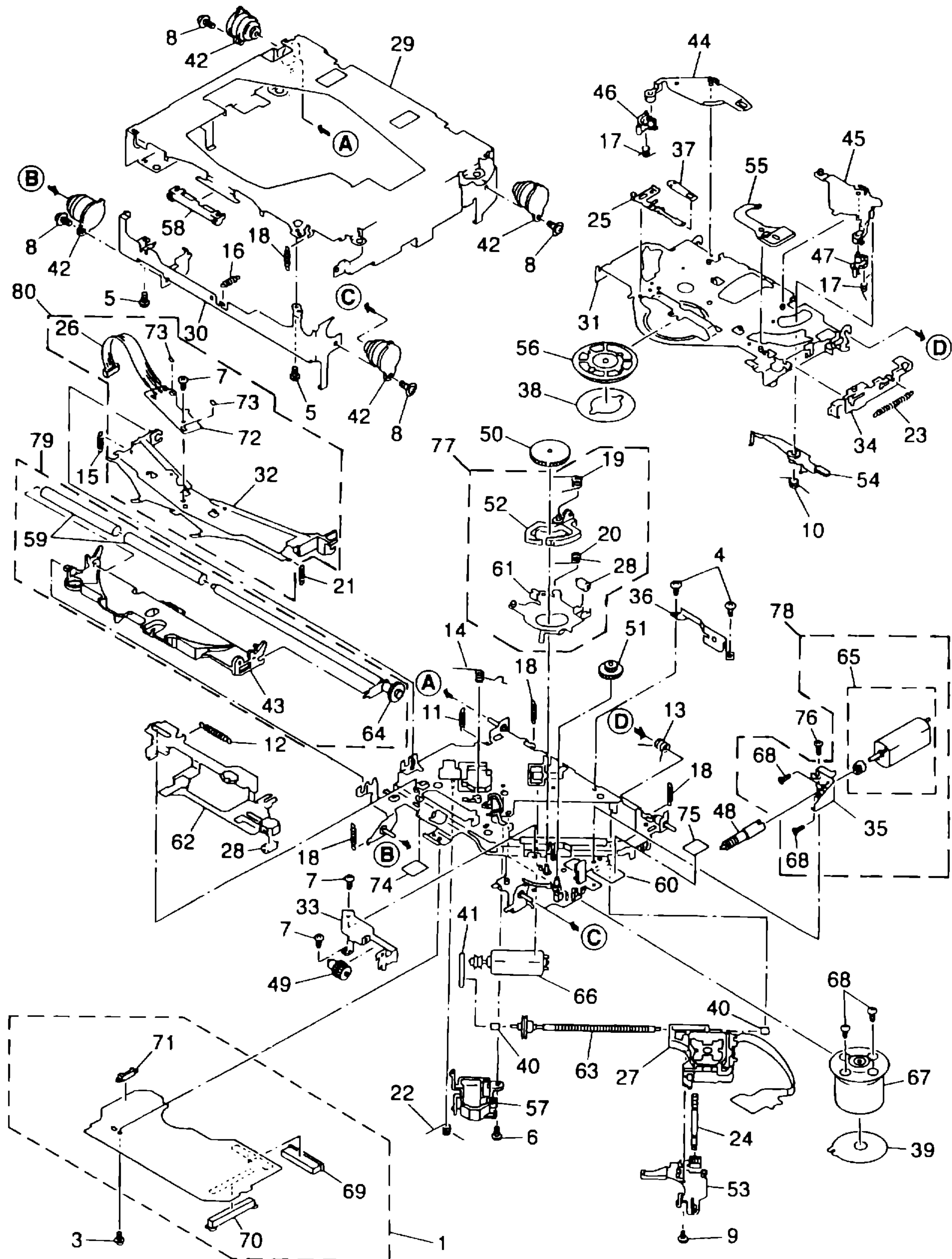


Fig. 5

● Parts List

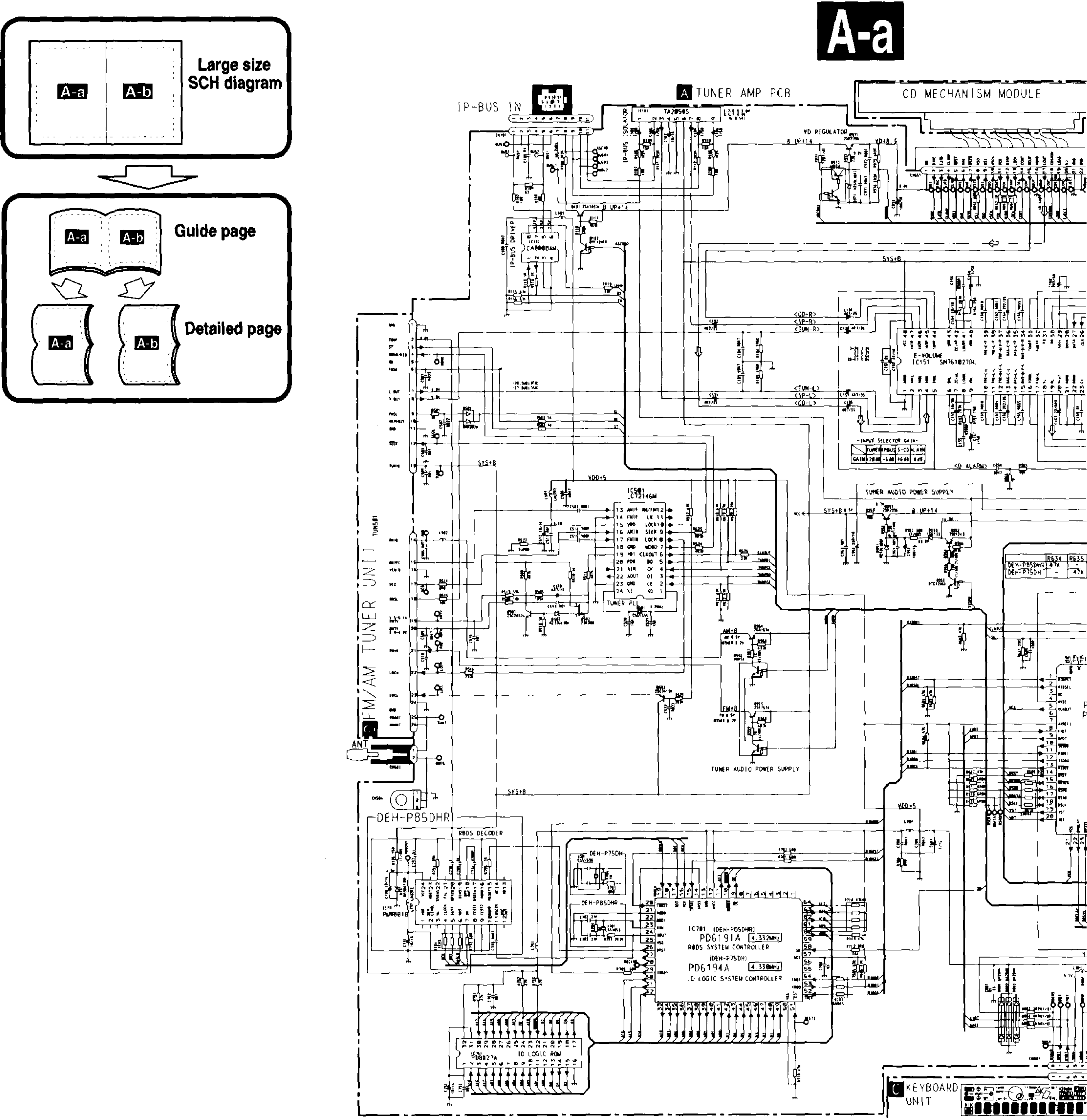
Mark No.	Description	Part No.
1	Control Unit	CWX1889
2		
3	Screw	IMS26P035FMC
4	Screw	BMZ20P040FMC
5	Screw	BSZ20P040FMC
6	Screw(M2×3)	CBA1077
7	Screw(M2×2)	CBA1250
8	Screw(M2×5)	CBA1296
9	Screw(M2×3.85)	CBA1362
10	Spring	CBH1945
11	Spring	CBH1724
12	Spring	CBH1939
13	Spring	CBH1729
14	Spring	CBH1730
15	Spring	CBH1731
16	Spring	CBH1732
17	Spring	CBH1736
18	Spring	CBH1745
19	Spring	CBH1832
20	Spring	CBH1833
21	Spring	CBH1848
22	Spring	CBH1849
23	Spring	CBH1863
24	Spring	CBL1214
25	Spring	CBL1269
26	Connector(CN1)	CDE4576
27	Pickup Unit(Service)	CXX1230
28	Roller	CLA2627
29	Frame	CNC5796
30	Frame	CNC5797
31	Arm	CNC5799
32	Arm	CNC5801
33	Bracket	CNC5871
34	Lever	CNC6054
35	Bracket	CNC6056
* 36	Bracket	CNC6376
37	Spacer	CNM3315
38	Sheet	CNM4849
39	PCB	CNP4230
40	Bearing	CNR1415
41	Belt	CNT1071
42	Damper	CNV3974
43	Arm	CNV4120
44	Arm	CNV4122
45	Arm	CNV4123

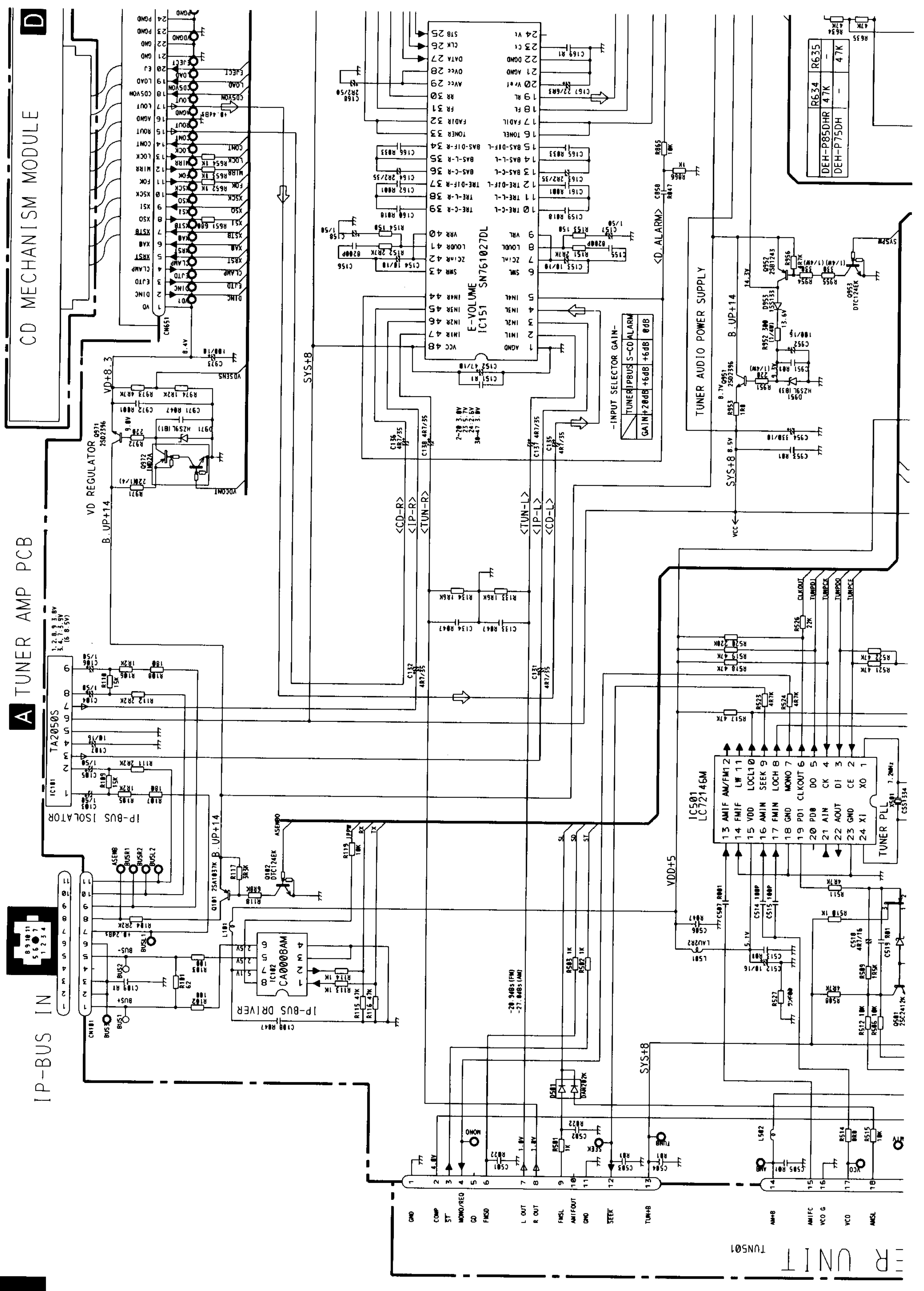
Mark No.	Description	Part No.
46	Arm	CNV4124
47	Arm	CNV4125
48	Gear	CNV4128
49	Gear	CNV4129
50	Gear	CNV4130
51	Gear	CNV4131
52	Arm	CNV4136
53	Holder	CNV4663
54	Arm	CNV4138
55	Arm	CNV4139
56	Clamper	CNV4140
57	Holder	CNV4664
58	Guide	CNV4484
59	Roller	CNV4509
60	Chassis Unit	CXA9515
61	Arm Unit	CXA8565
62	Lever Unit	CXA9300
63	Screw Unit	CXA8699
64	Gear Unit	CXA8701
65	Load Motor Unit(M3)	CXA8702
66	CRG Motor Unit(M2)	CXA8986
67	Motor Unit(M1)	CXA8912
68	Screw	JFZ20P025FMC
69	Connector(CN101)	CKS1953
70	Connector(CN701)	CKS2774
71	Connector(CN801)	CKS2196
* 72	Gathering PCB	CNX2445
73	Photo-transistor(Q1, 2)	CPT-230S-X
74	Sheet	CNM4873
75	Cushion	CNM3917
76	Screw	BMZ20P025FMC
77	ELBO Arm Assy	CXA8889
78	Load Motor Assy	CXA8891
79	LO Arm Assy	CXA8892
80	Guide Arm Assy	CXA8893

3. SCHEMATIC DIAGRAM

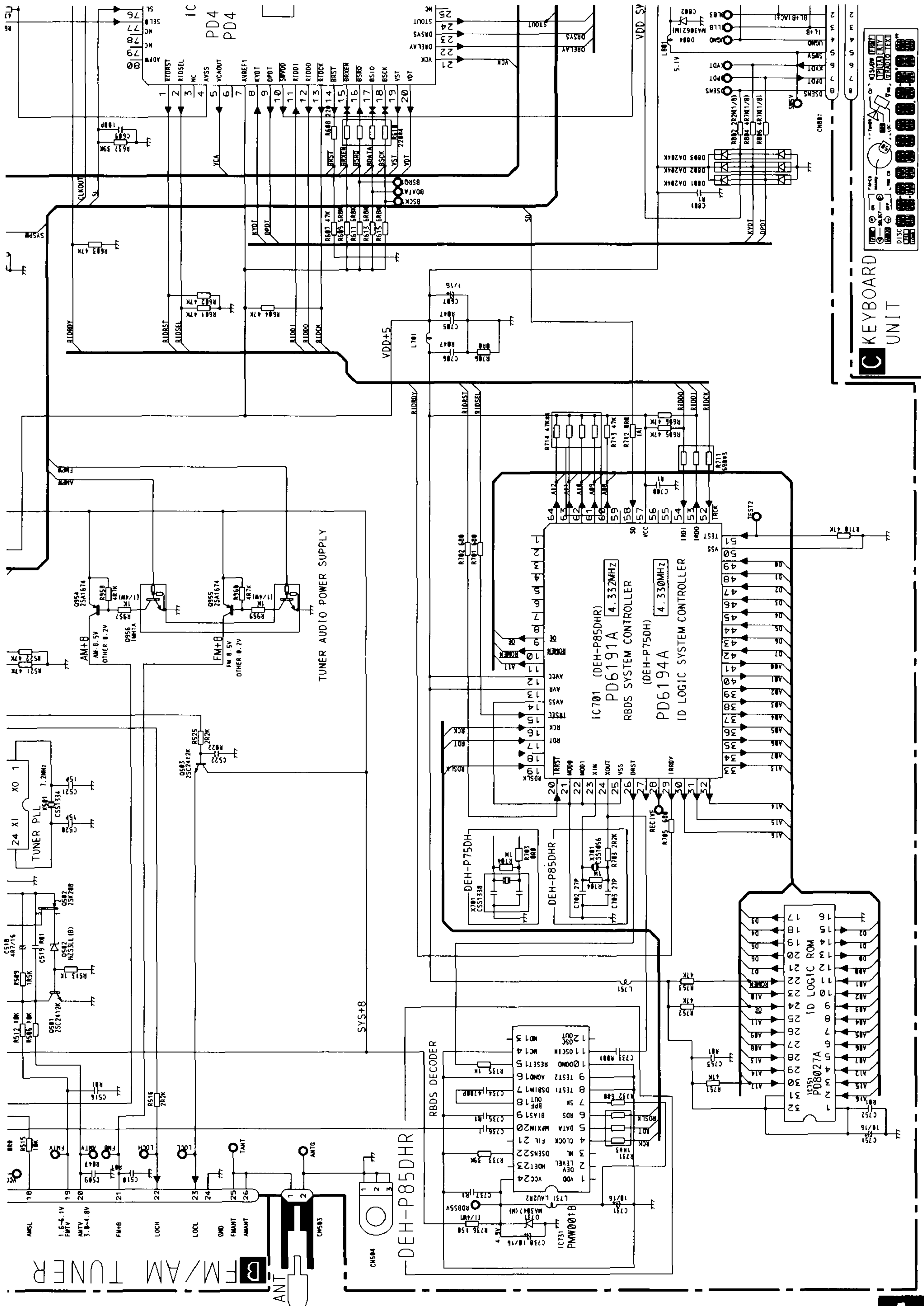
3.1 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to “EXPLODED VIEWS AND PARTS LIST” or “ELECTRICAL PARTS LIST”.





TUN501
R UNIT

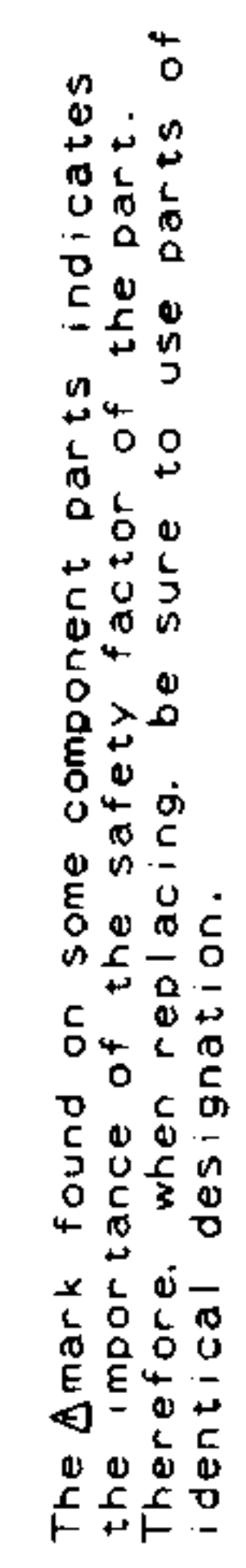


A-b

Fig. 7

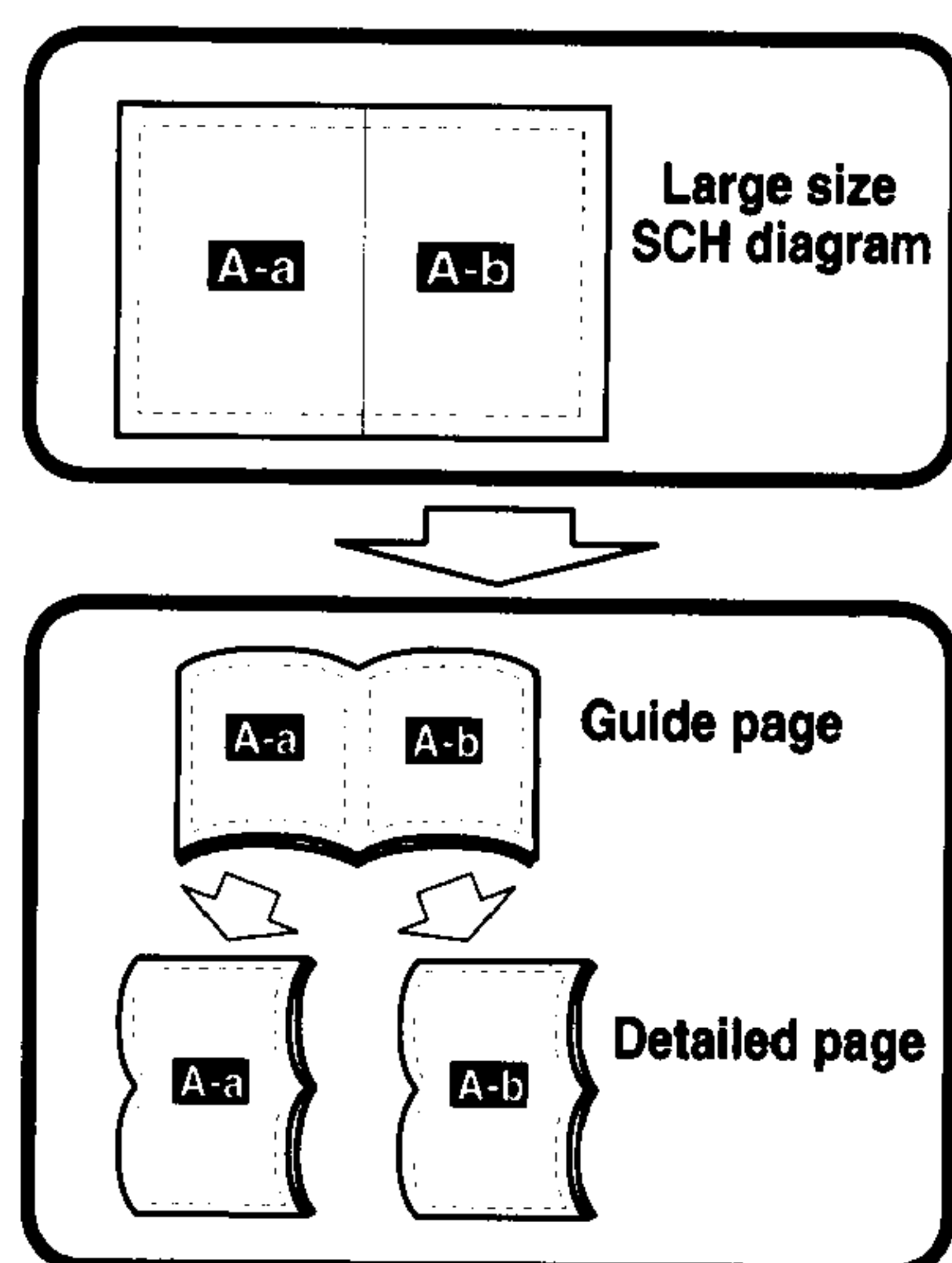
A-a



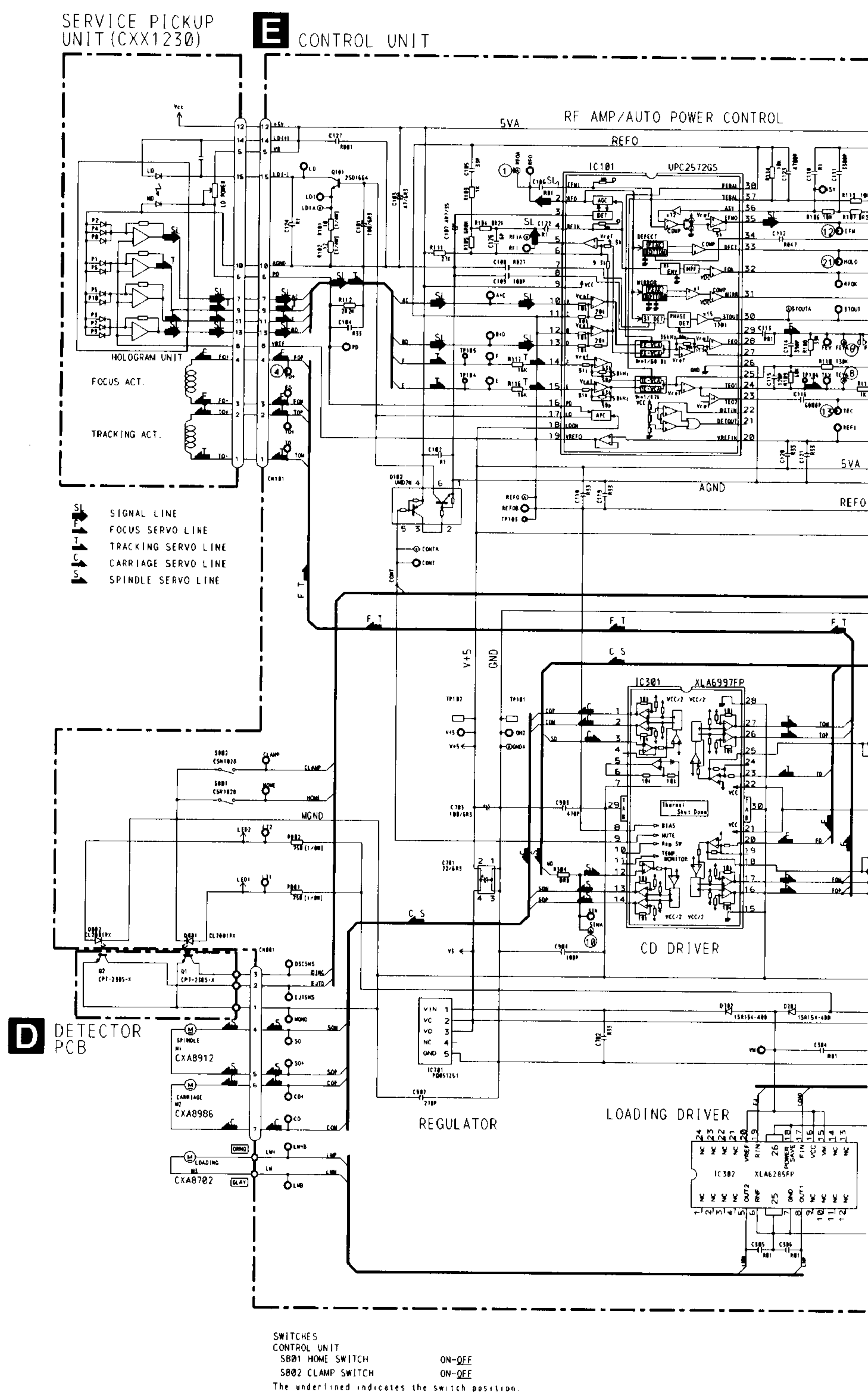


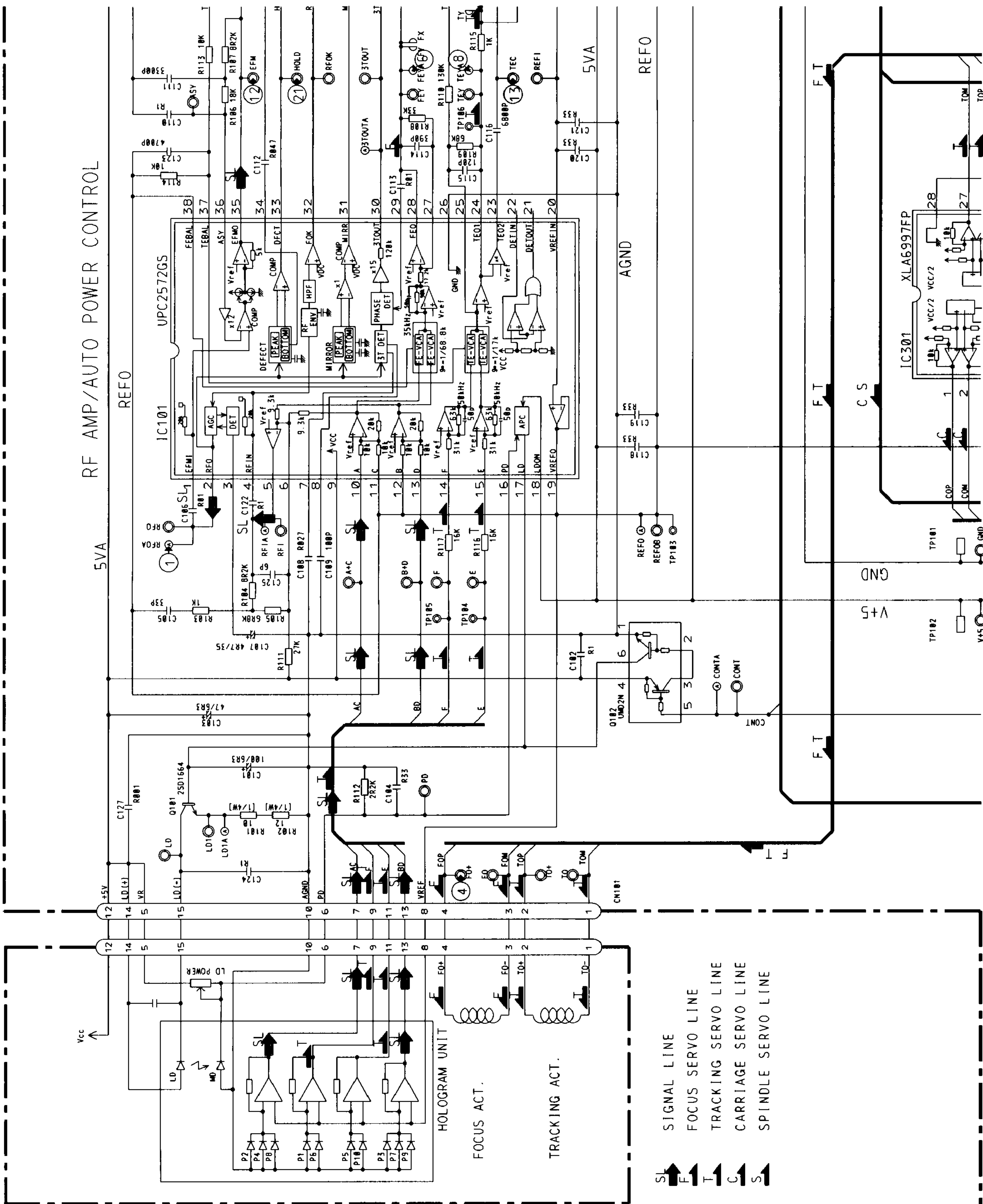
A-b

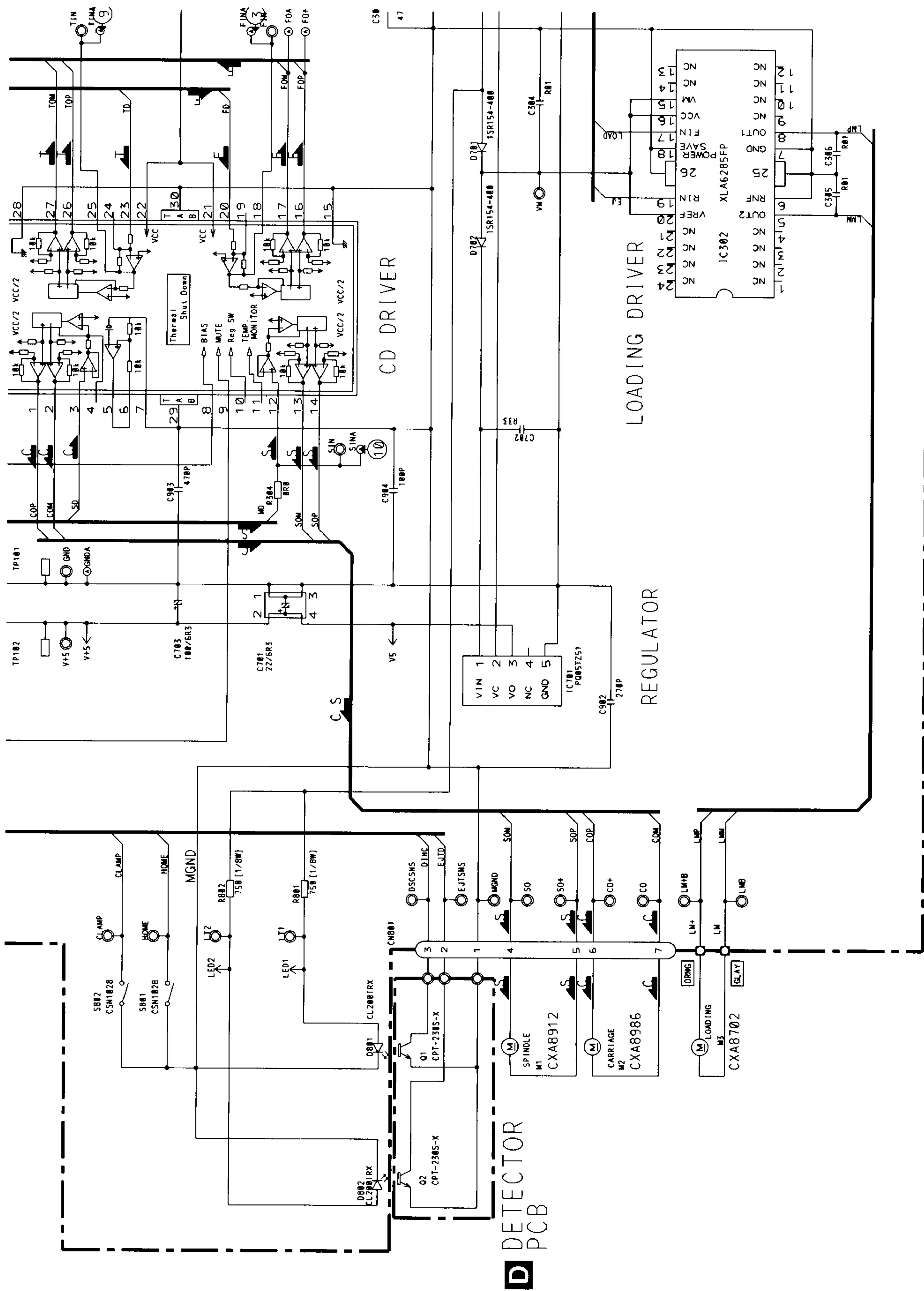
3.2 CD MECHANISM MODULE (GUIDE PAGE)

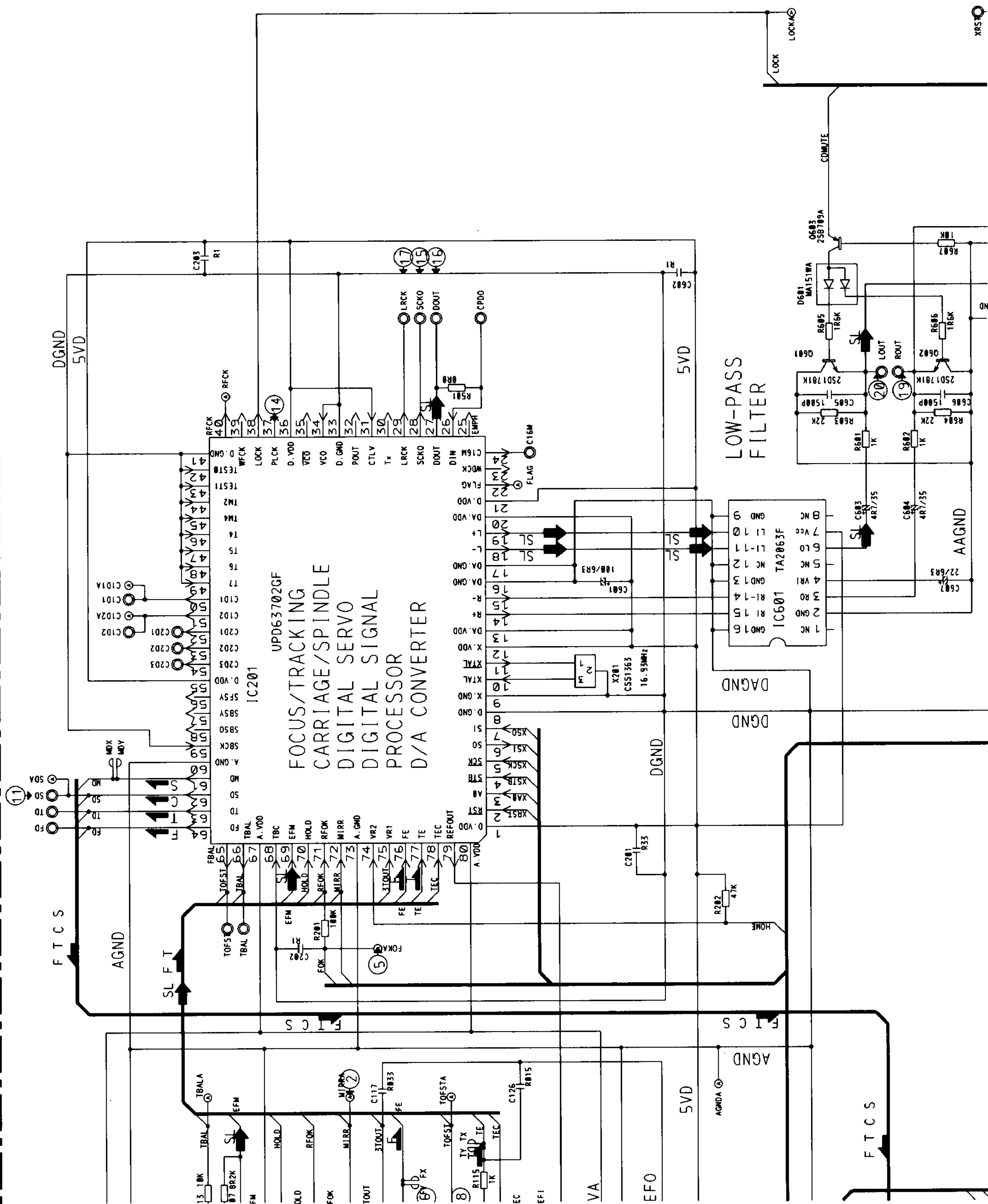


E-a



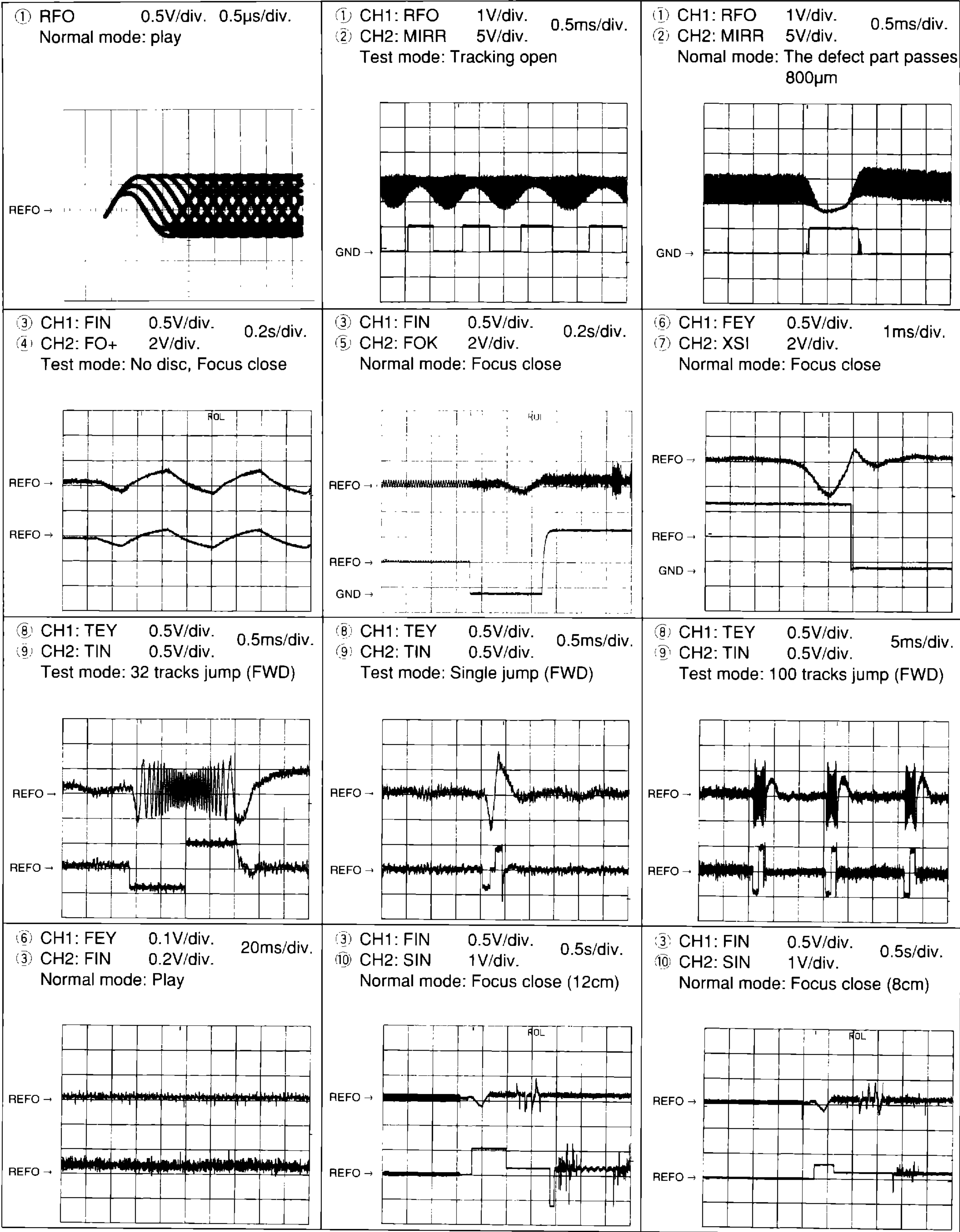




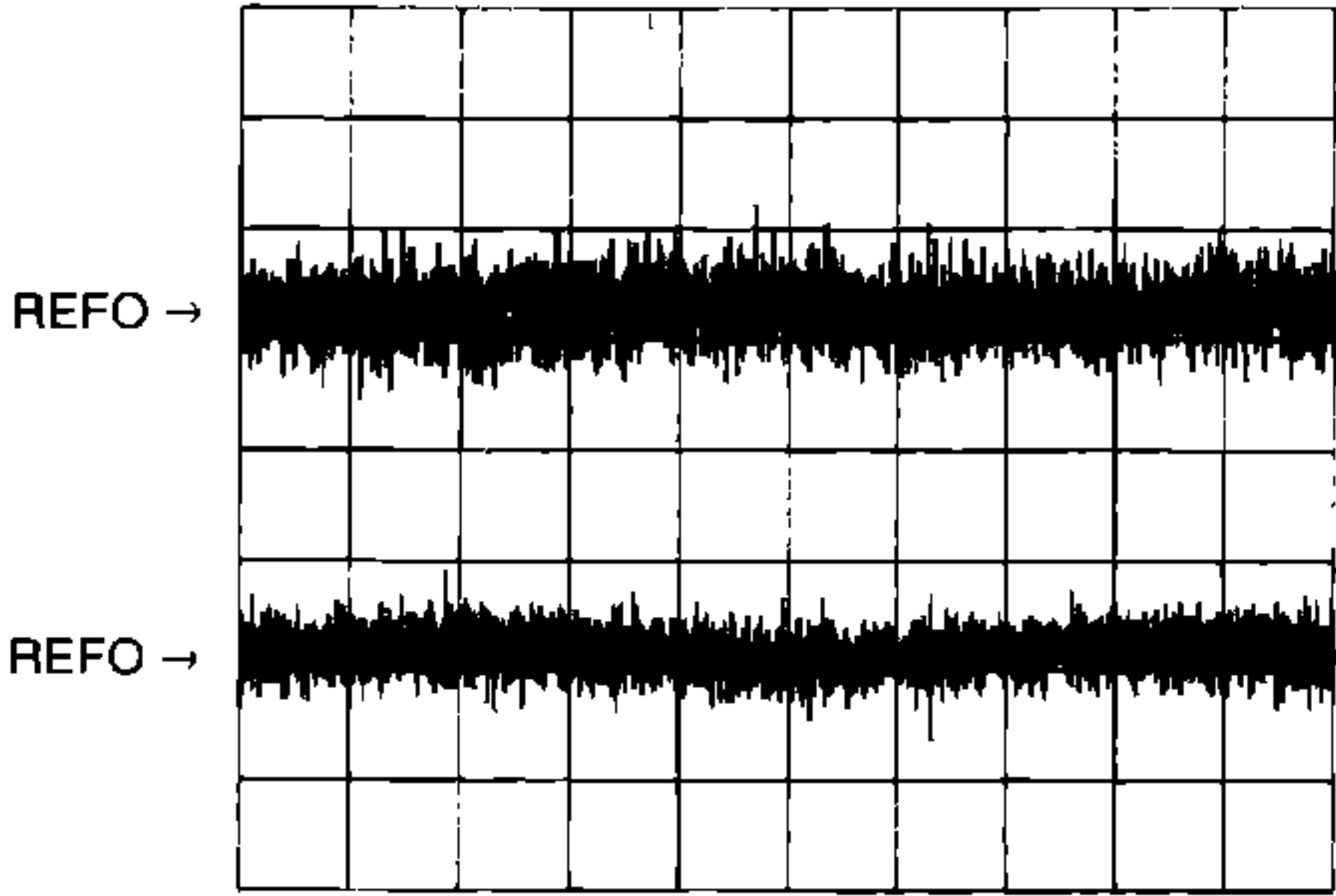


Note:1. The encircled numbers denote measuring pointes in the circuit diagram.
2. Reference voltage
REFO:2.5V

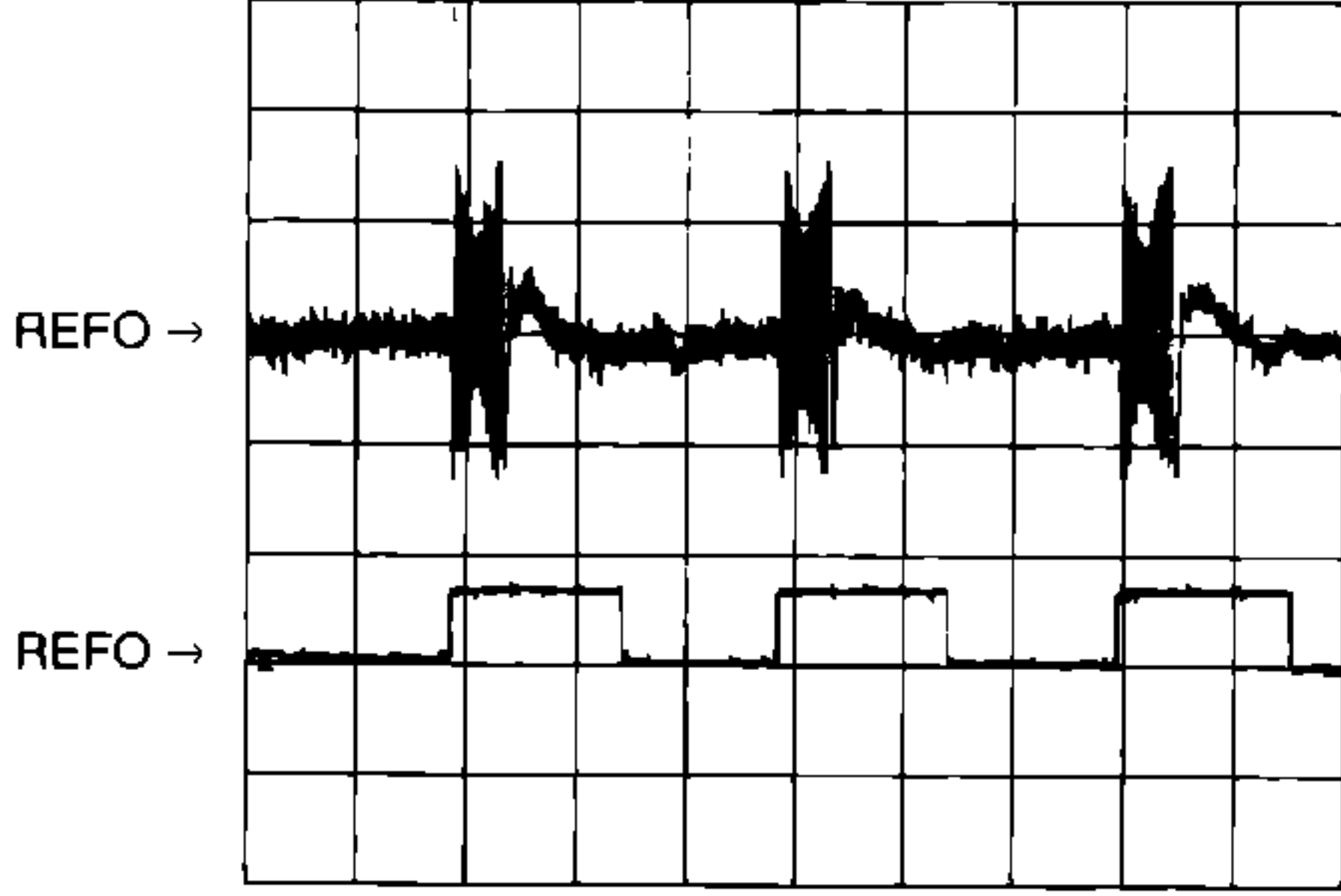
● Waveforms



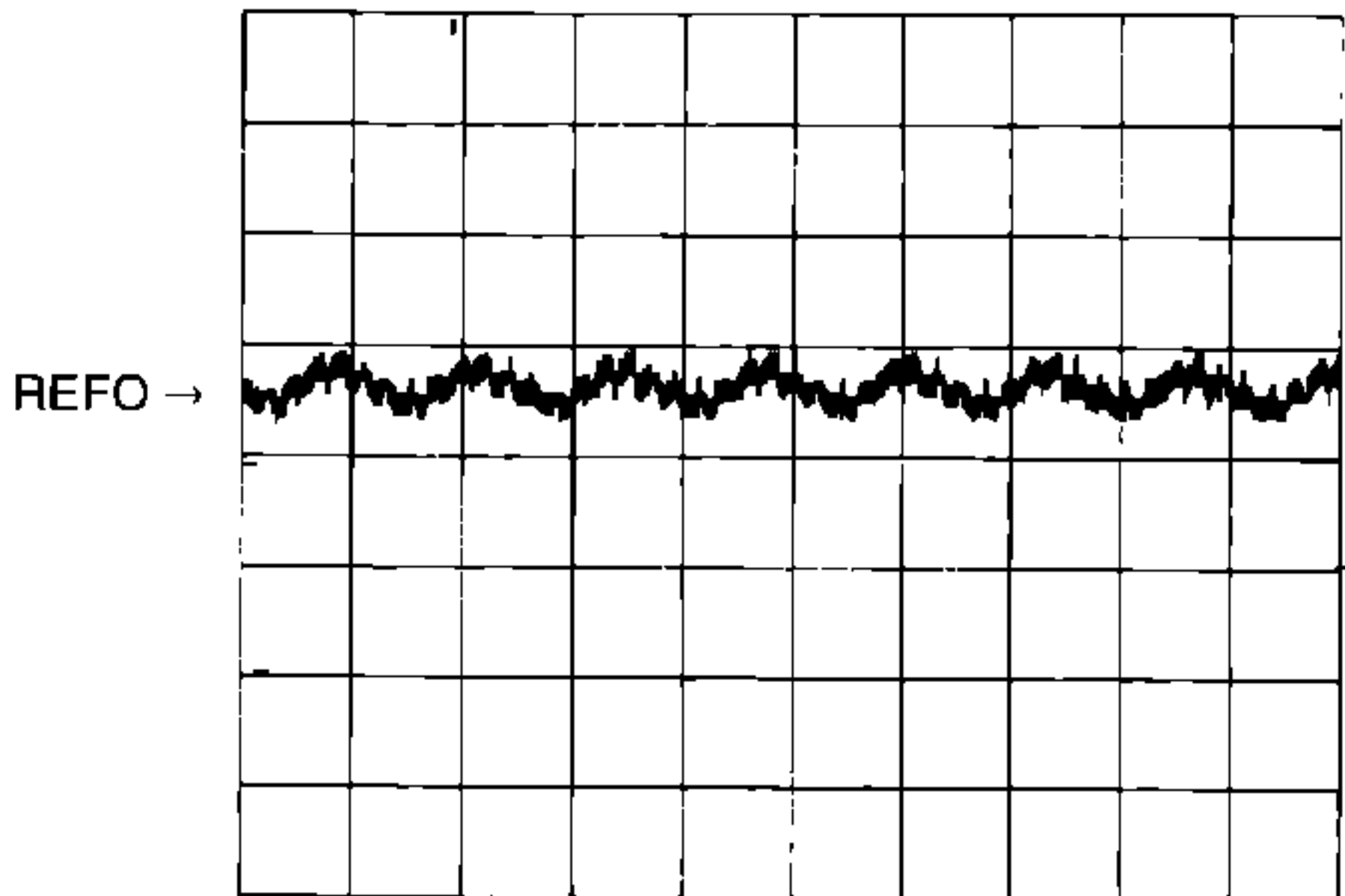
⑧ CH1: TEY 0.2V/div. 20ms/div.
⑨ CH2: TIN 0.2V/div.
Normal mode: play



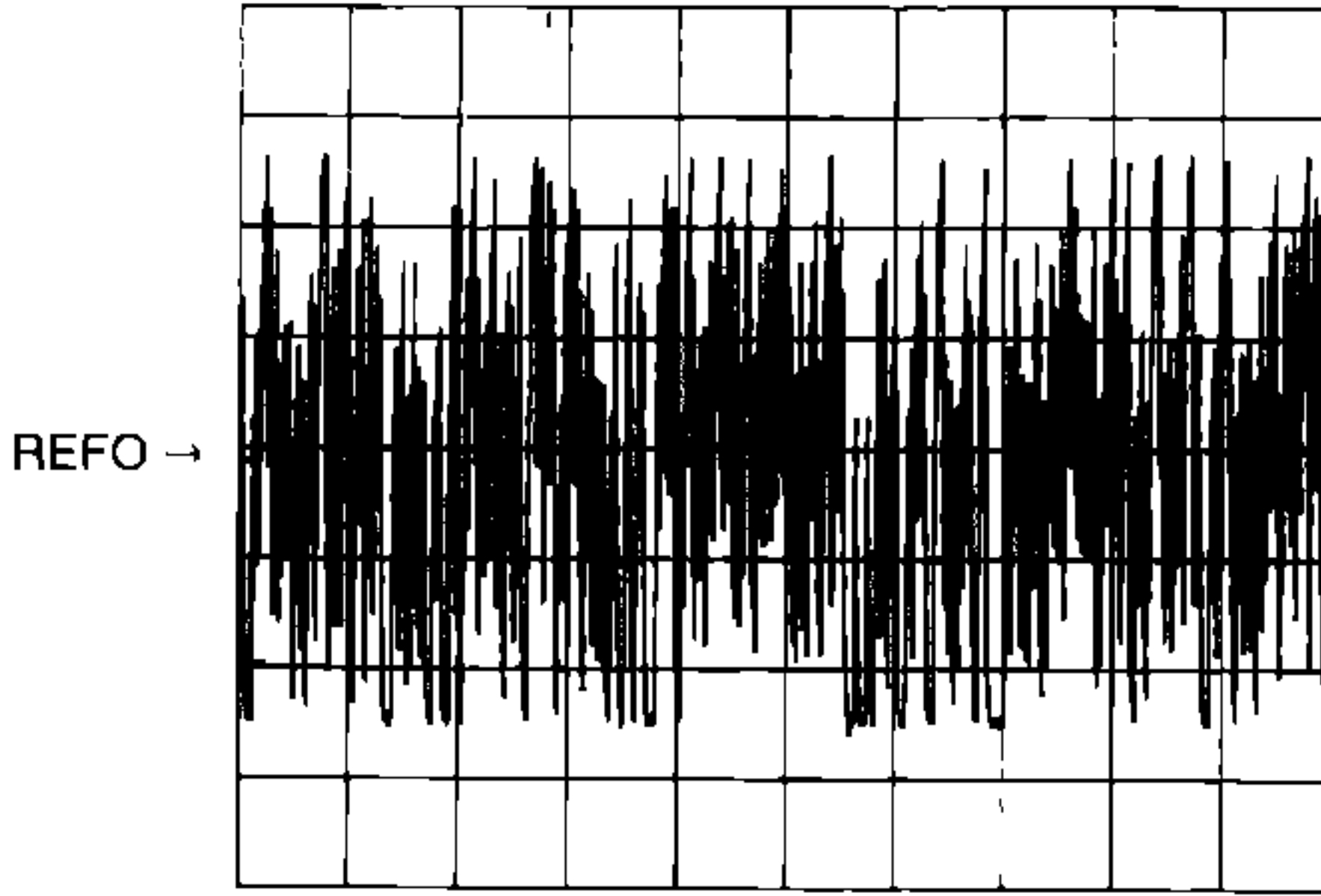
⑧ CH1: TEY 0.5V/div. 5ms/div.
⑪ CH2: SD 0.5V/div.



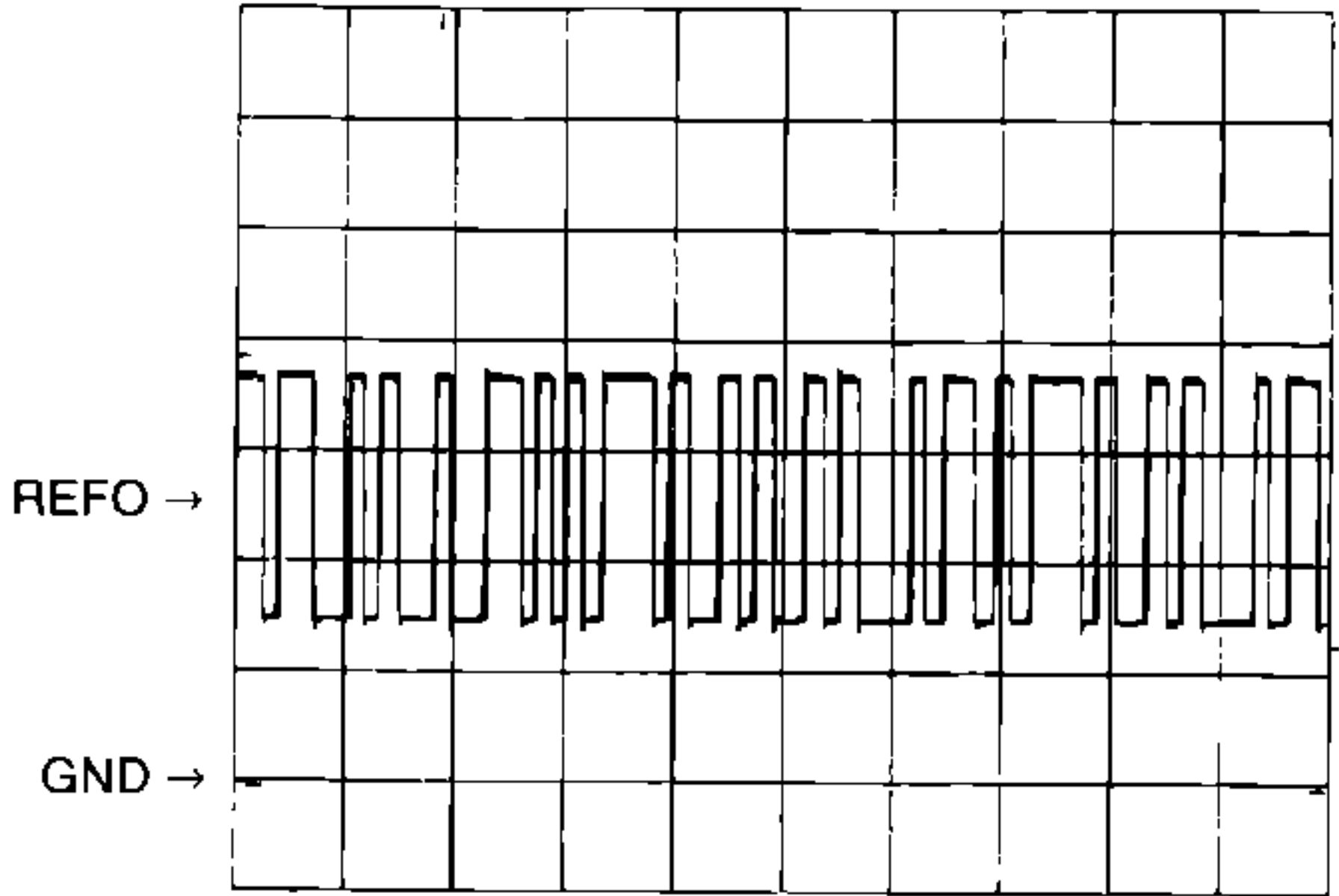
⑩ SIN 0.5V/div. 0.1s/div.
Normal mode: Play (12cm)



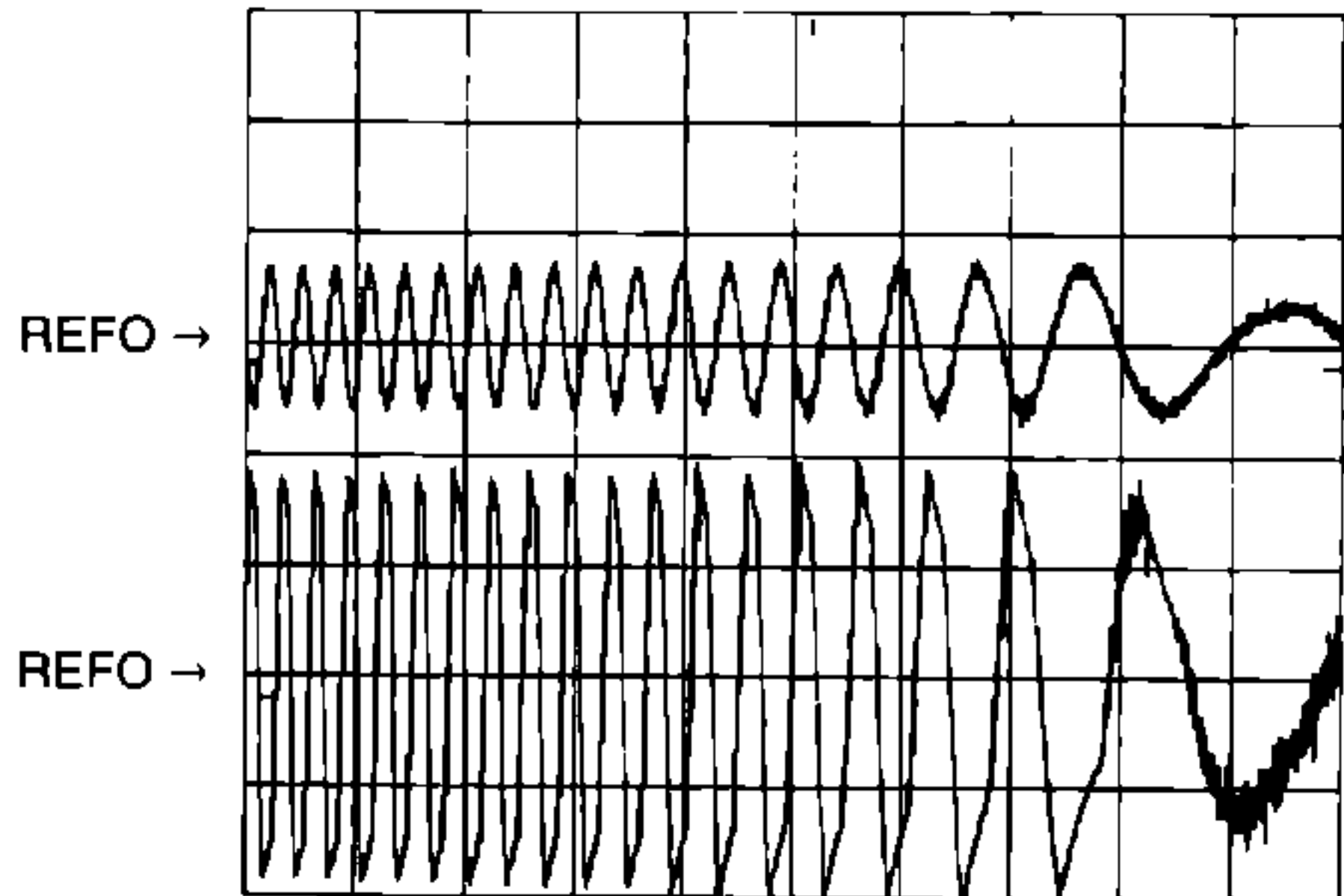
⑩ SIN 0.5V/div. 10ms/div.
Long Search (12cm)



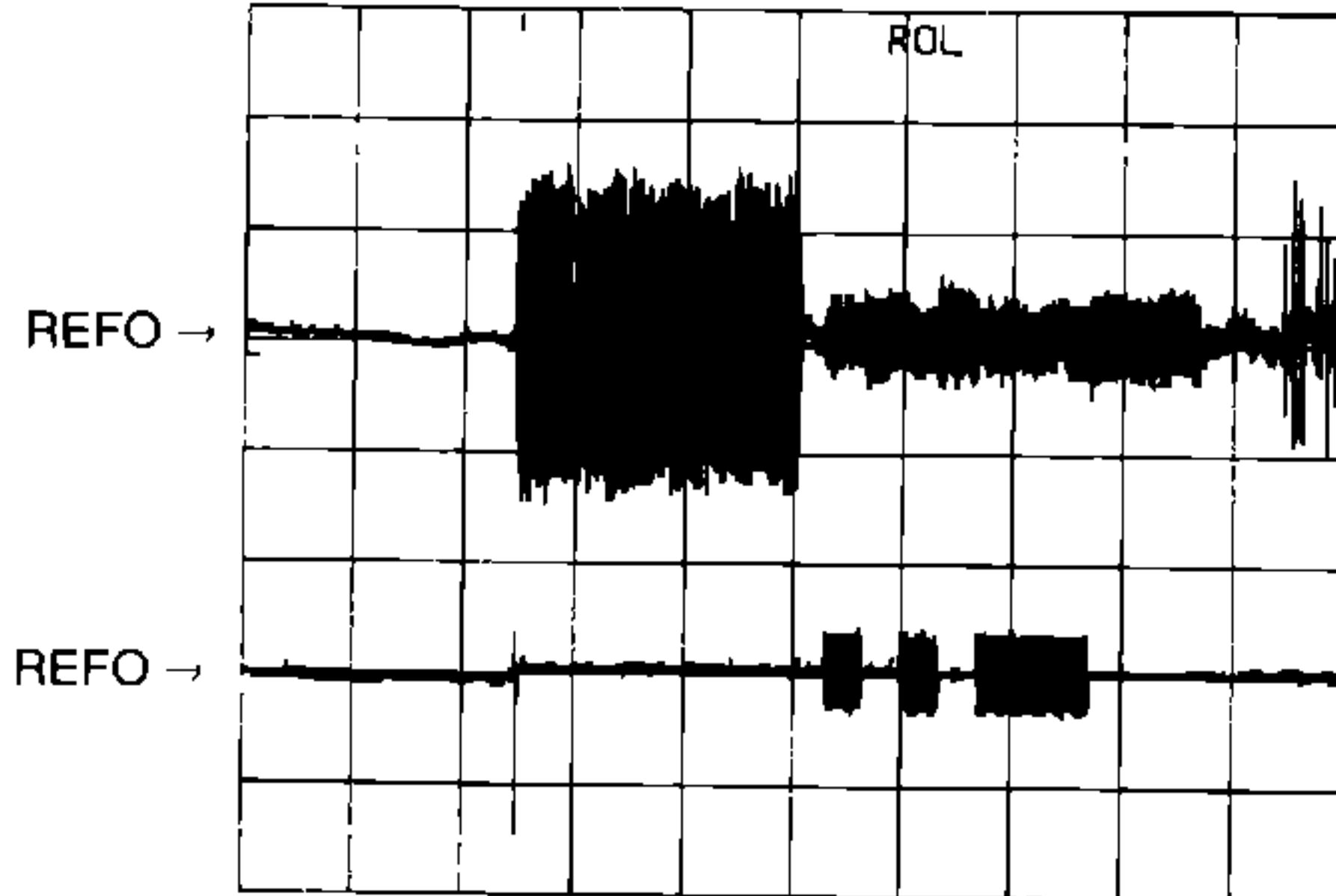
⑫ EFM 1V/div. 5μs/div.
Play



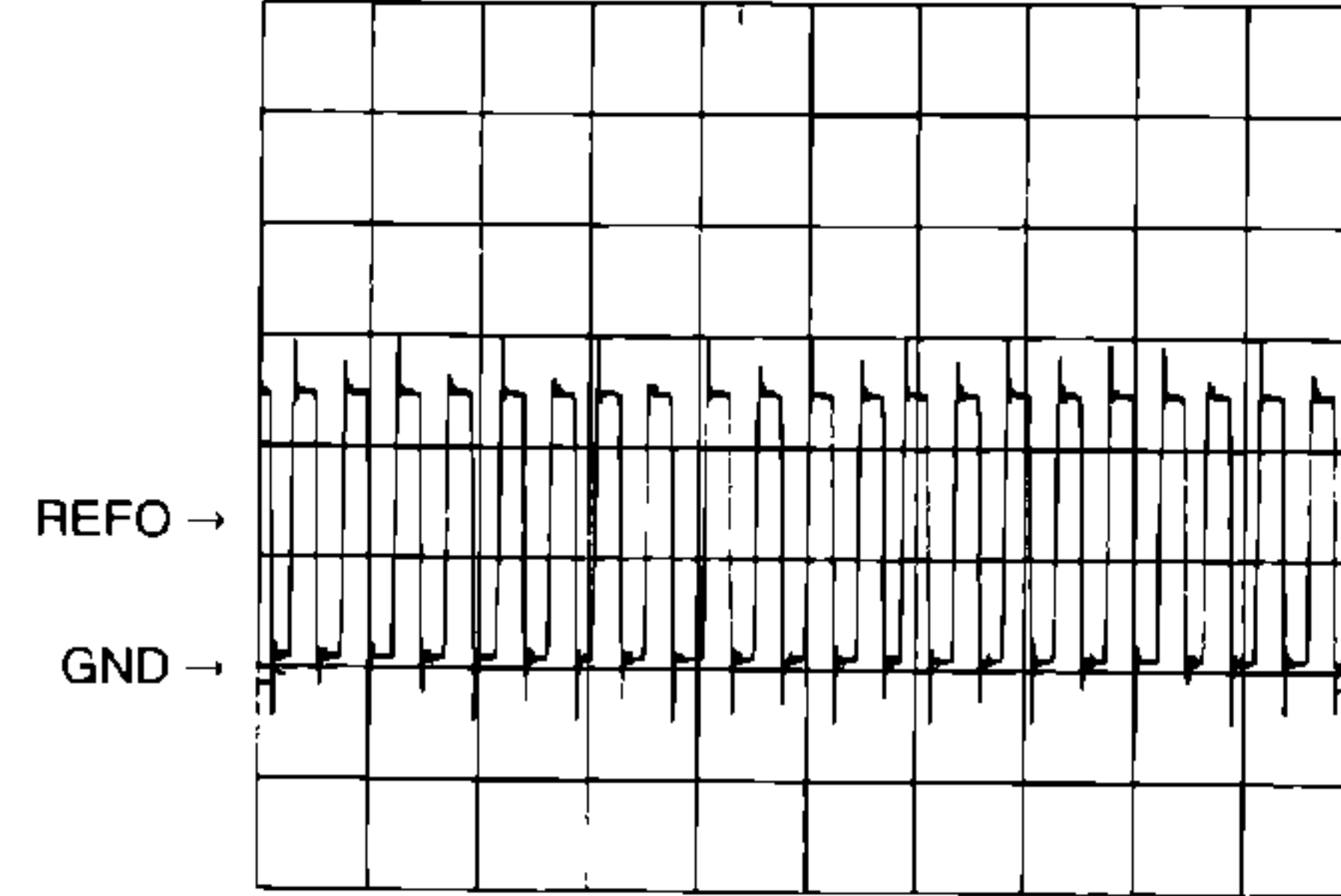
⑧ CH1: TEY 1V/div. 2ms/div.
⑬ CH2: TEC 1V/div.
Test mode: Focus close
Tracking open



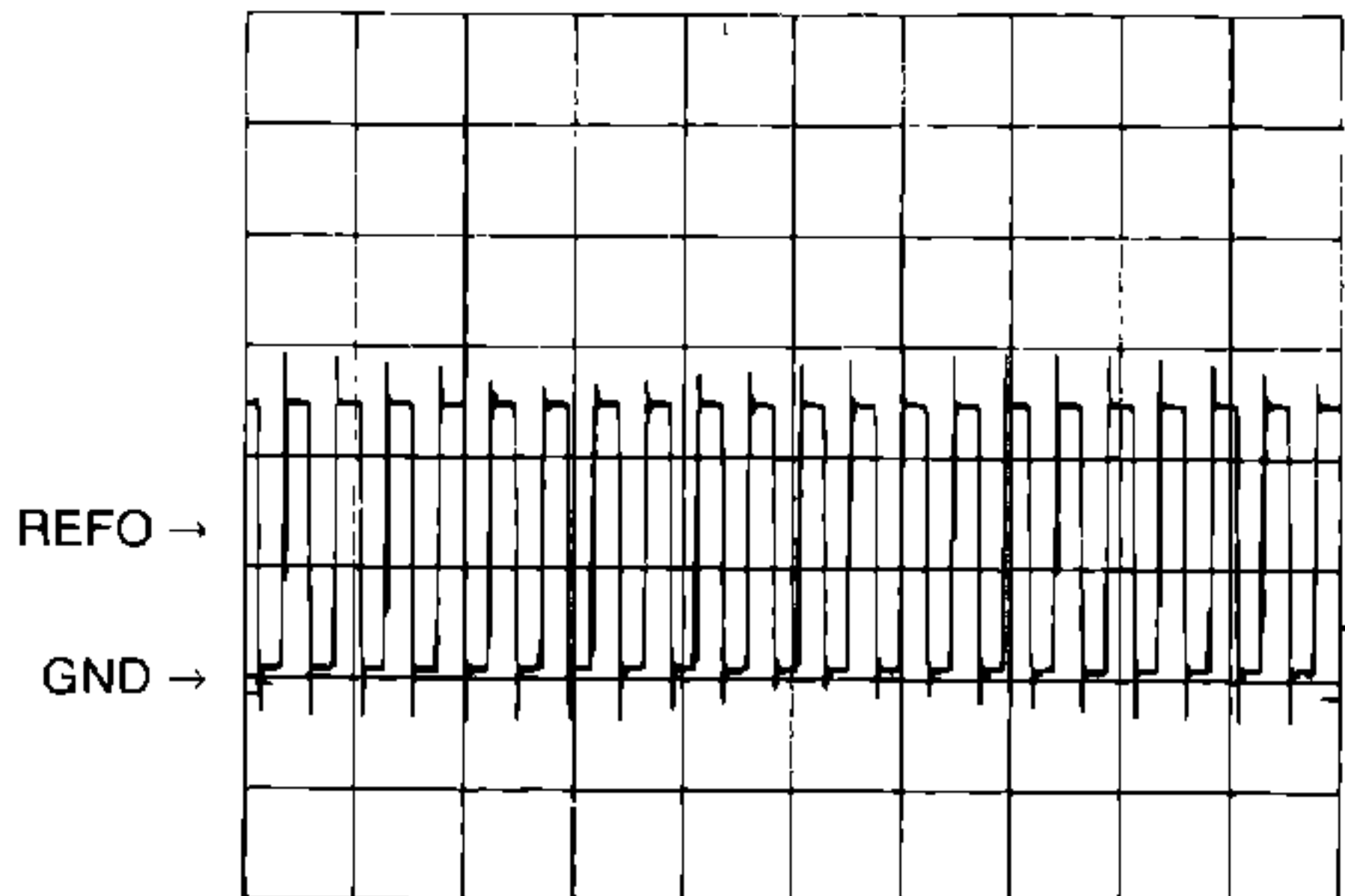
⑧ CH1: TEY 0.5V/div. 0.2s/div.
⑥ CH2: FEY 0.5V/div.
Normal mode: AGC after focus close



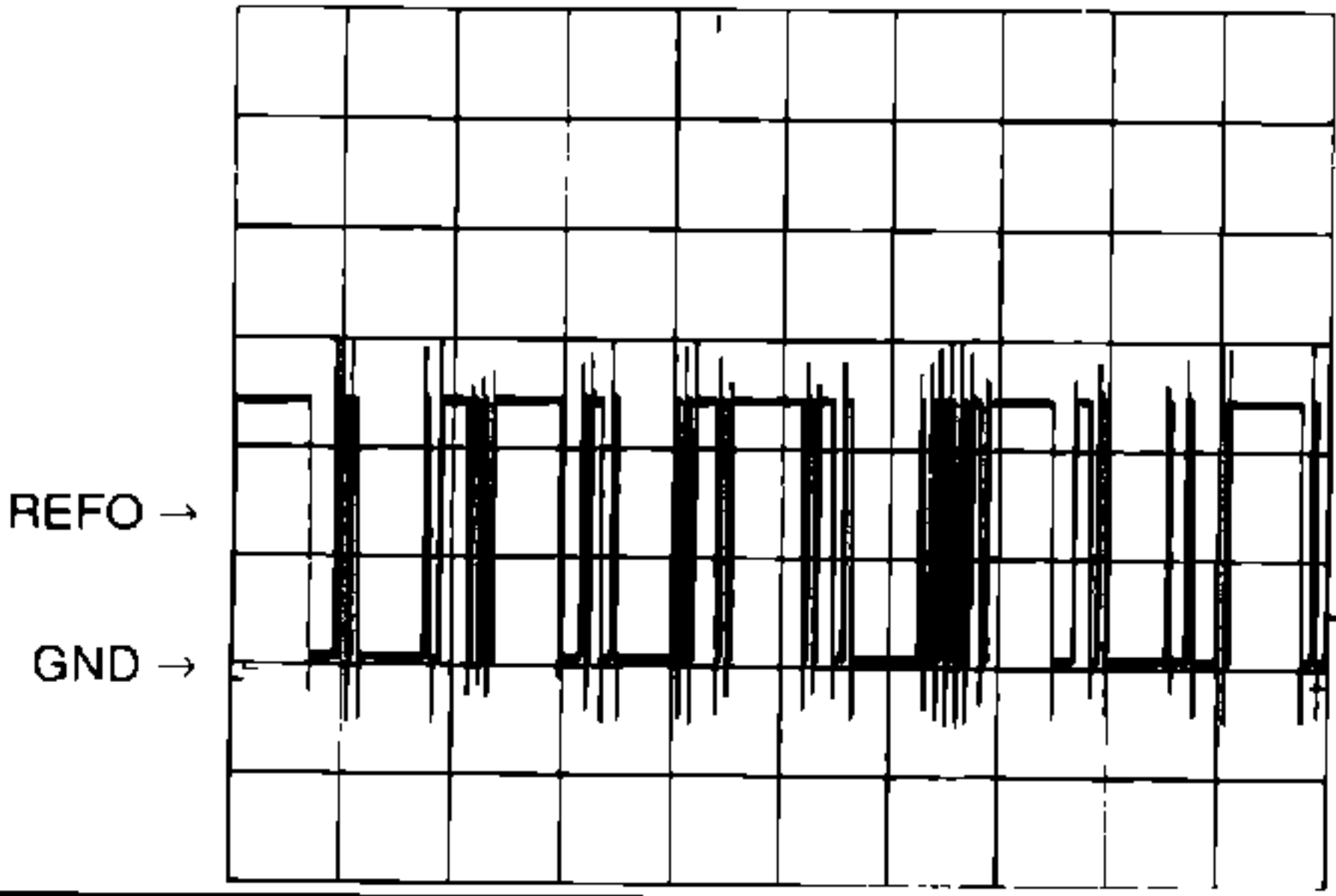
⑭ PLCK 2V/div. 0.5μs/div.
Play



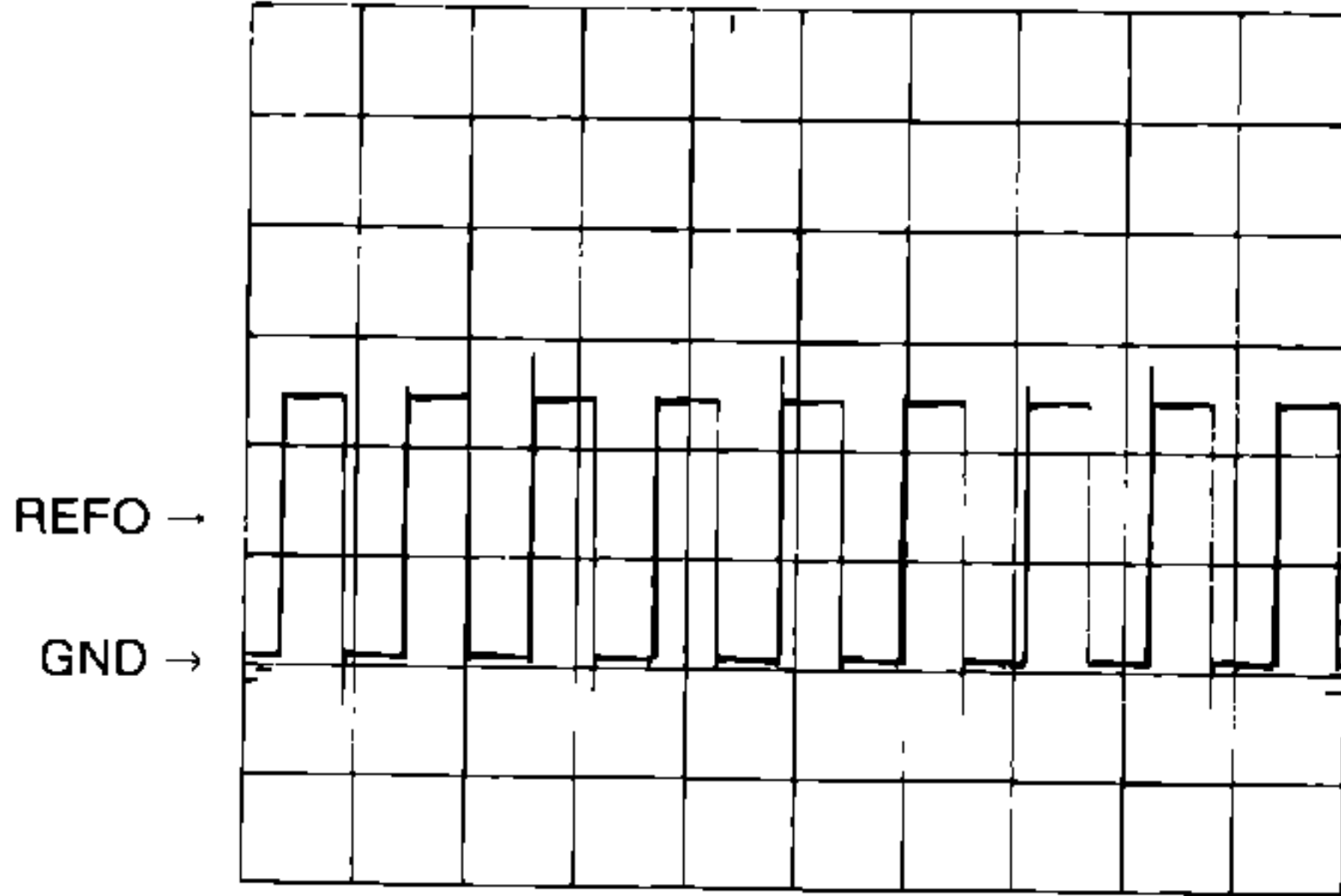
⑮ SCKO 2V/div. 1μs/div.
Play



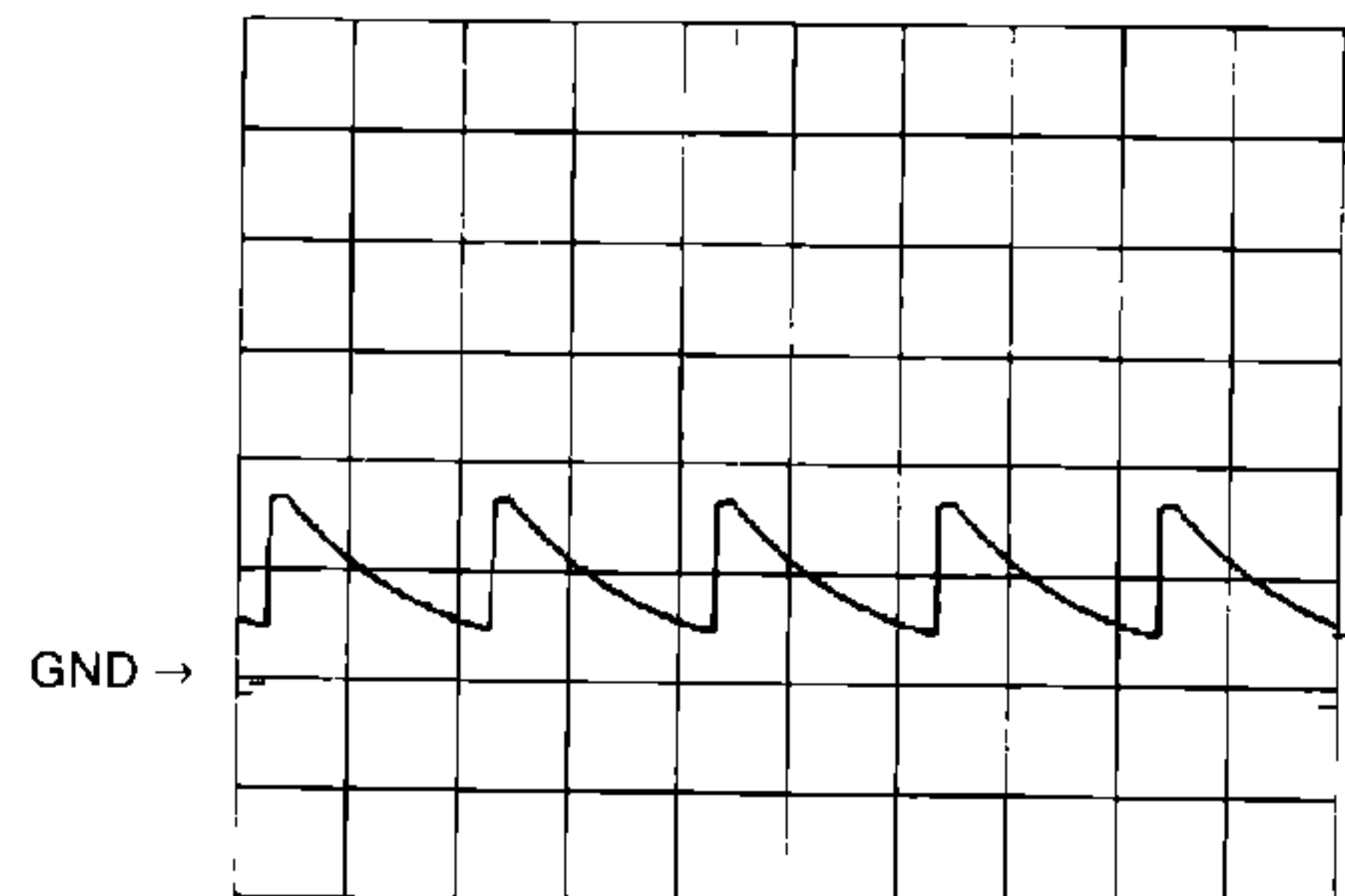
⑯ Dout 2V/div. 10μs/div.
Play

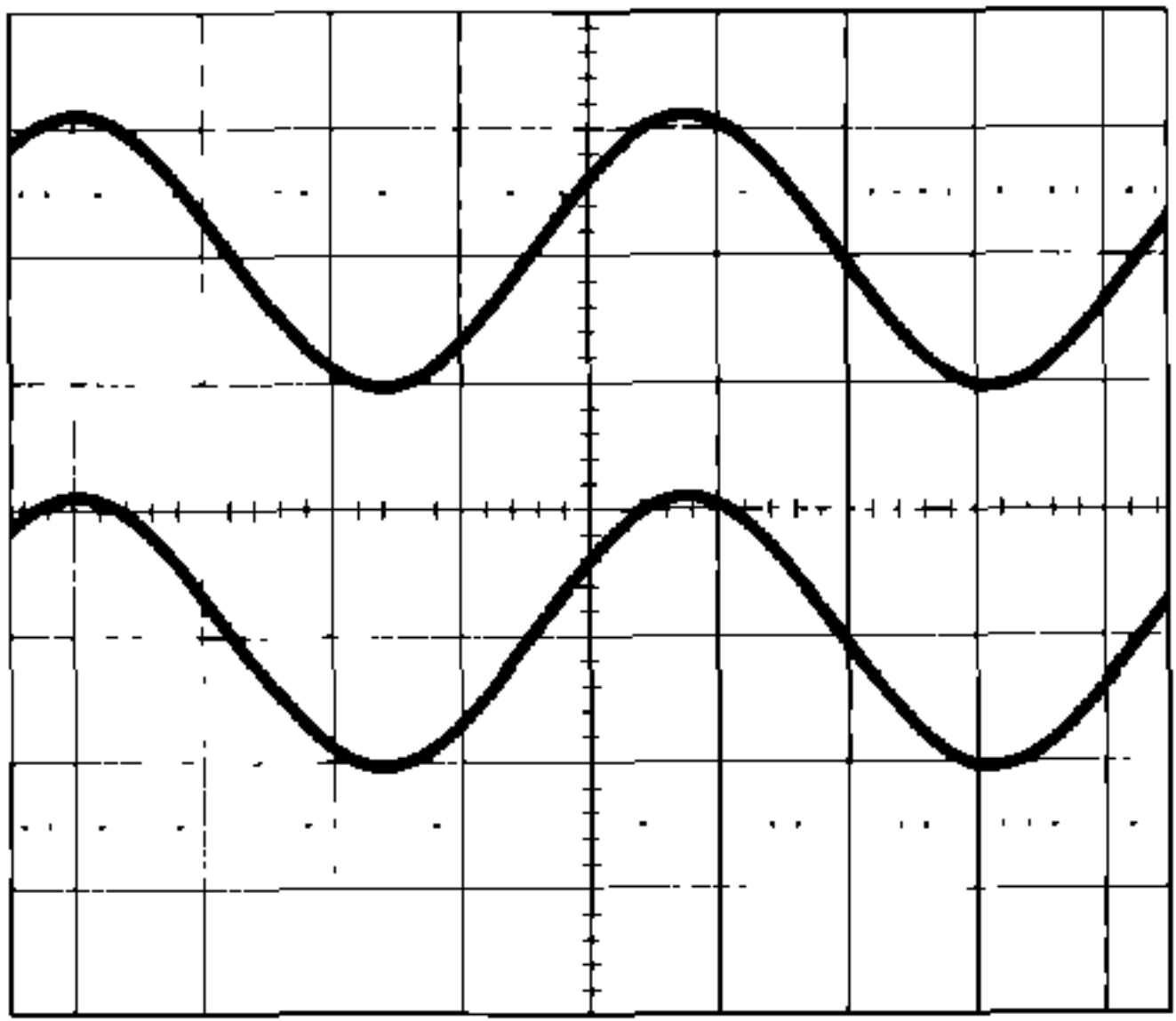
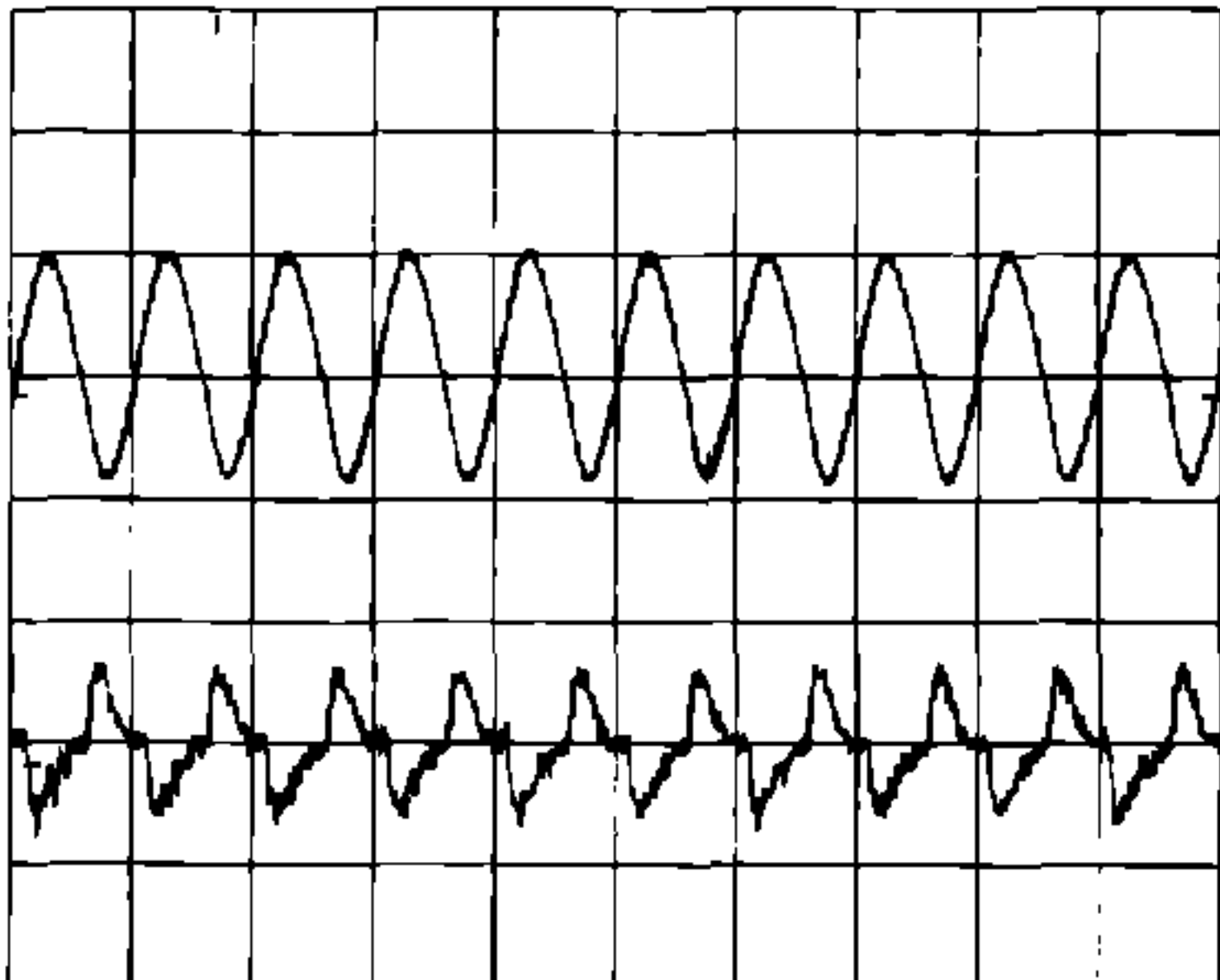
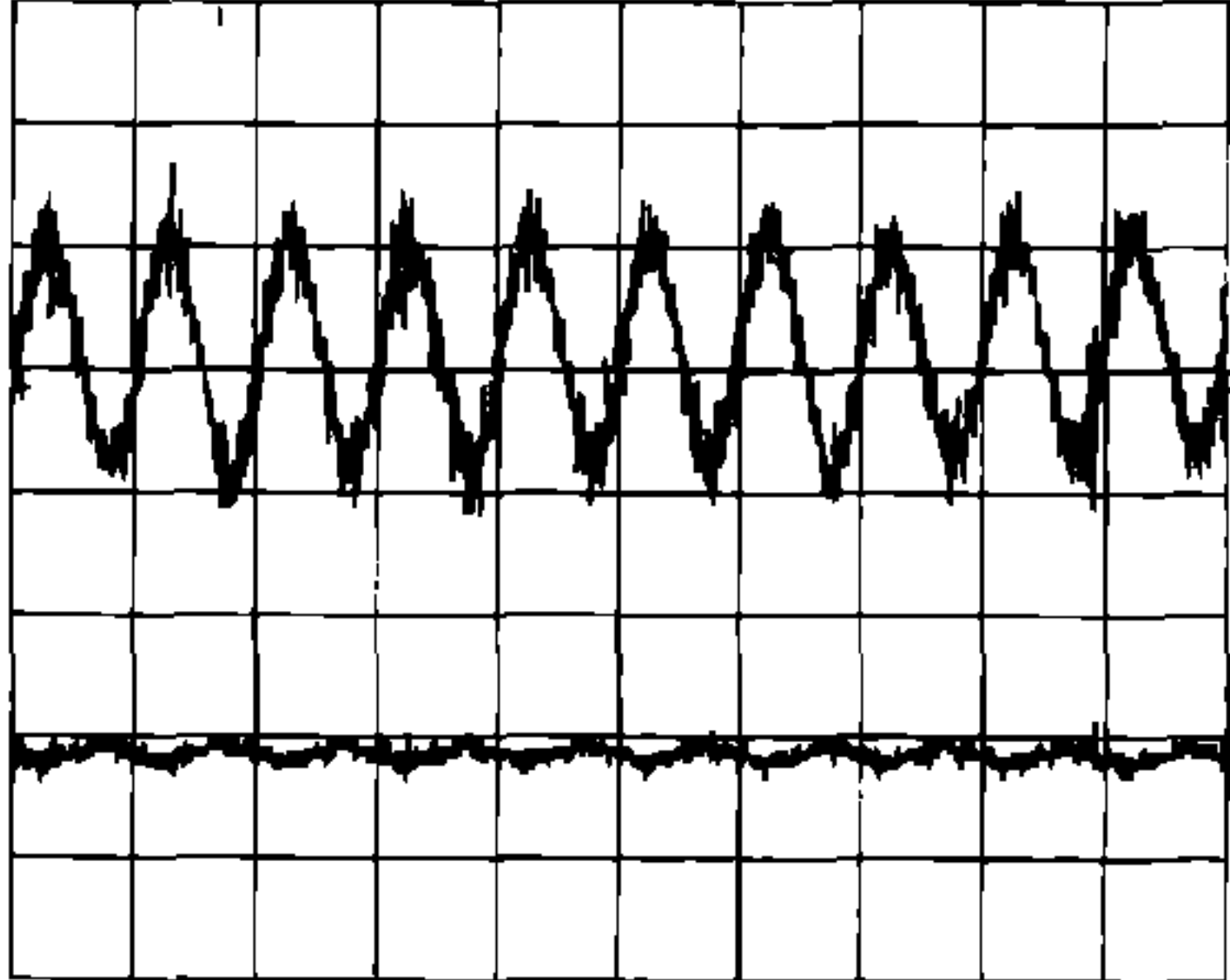
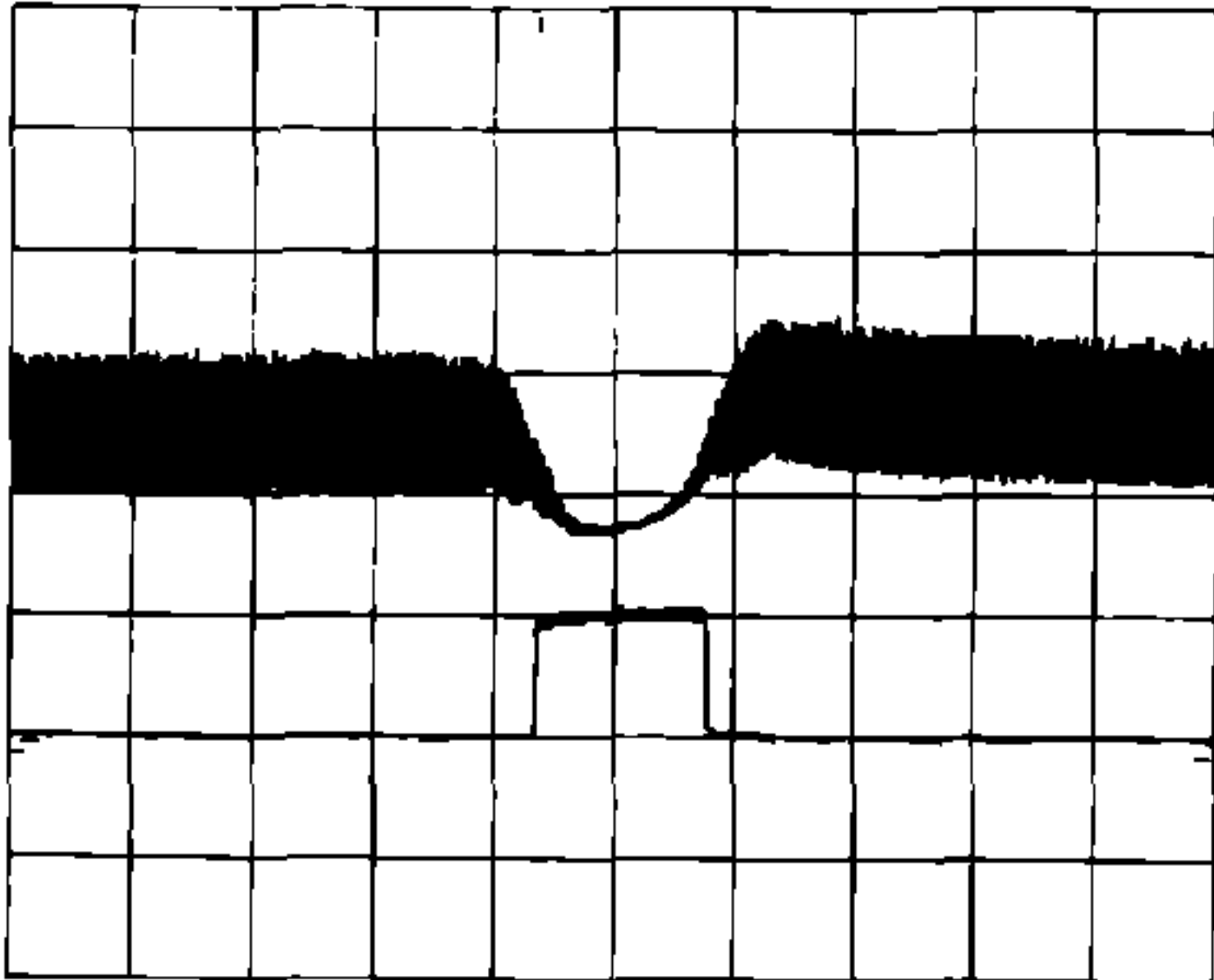
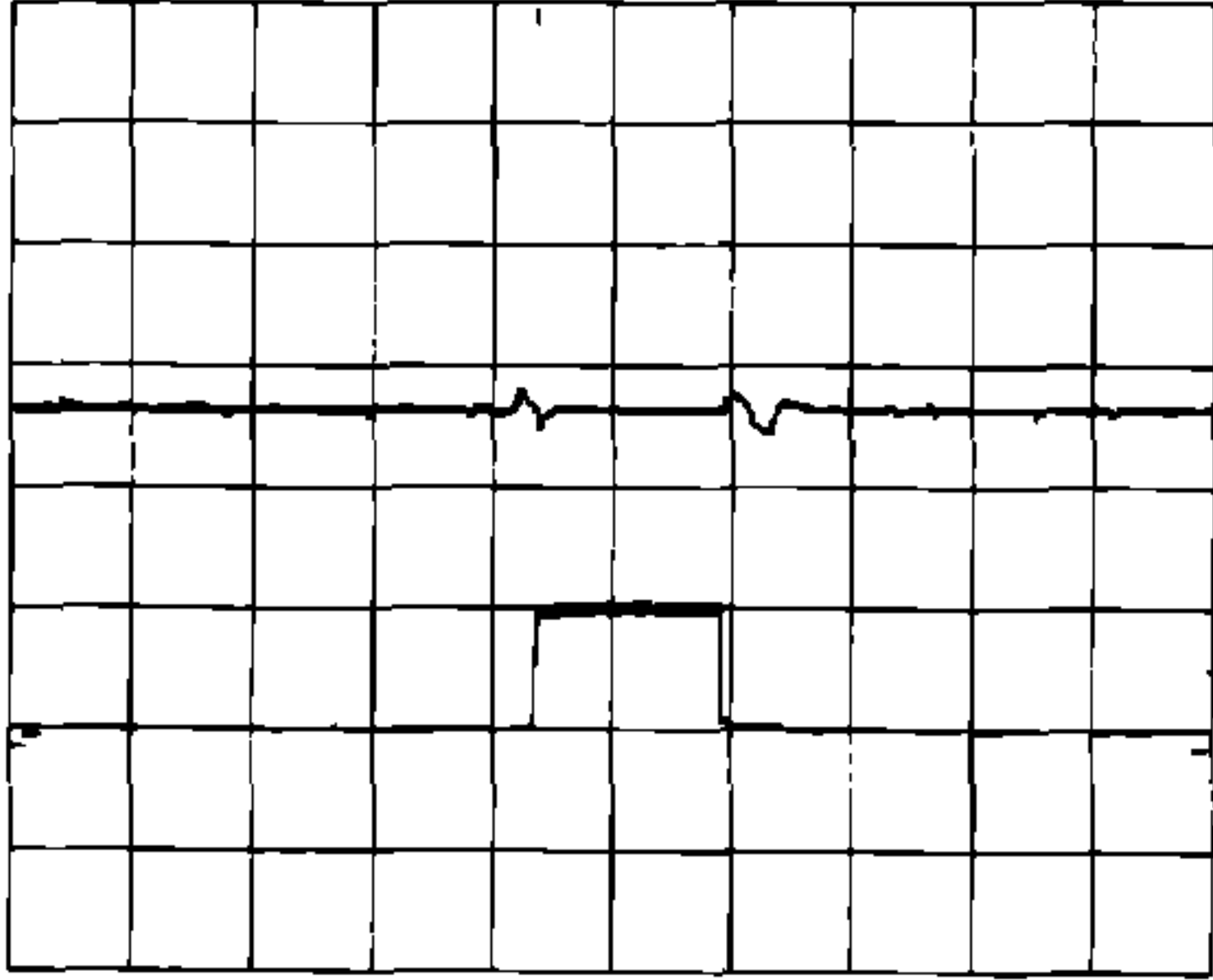


⑰ LRCK 2V/div. 20μs/div.



⑱ VD 5V/div. 50ms/div.
Normal mode: No disc



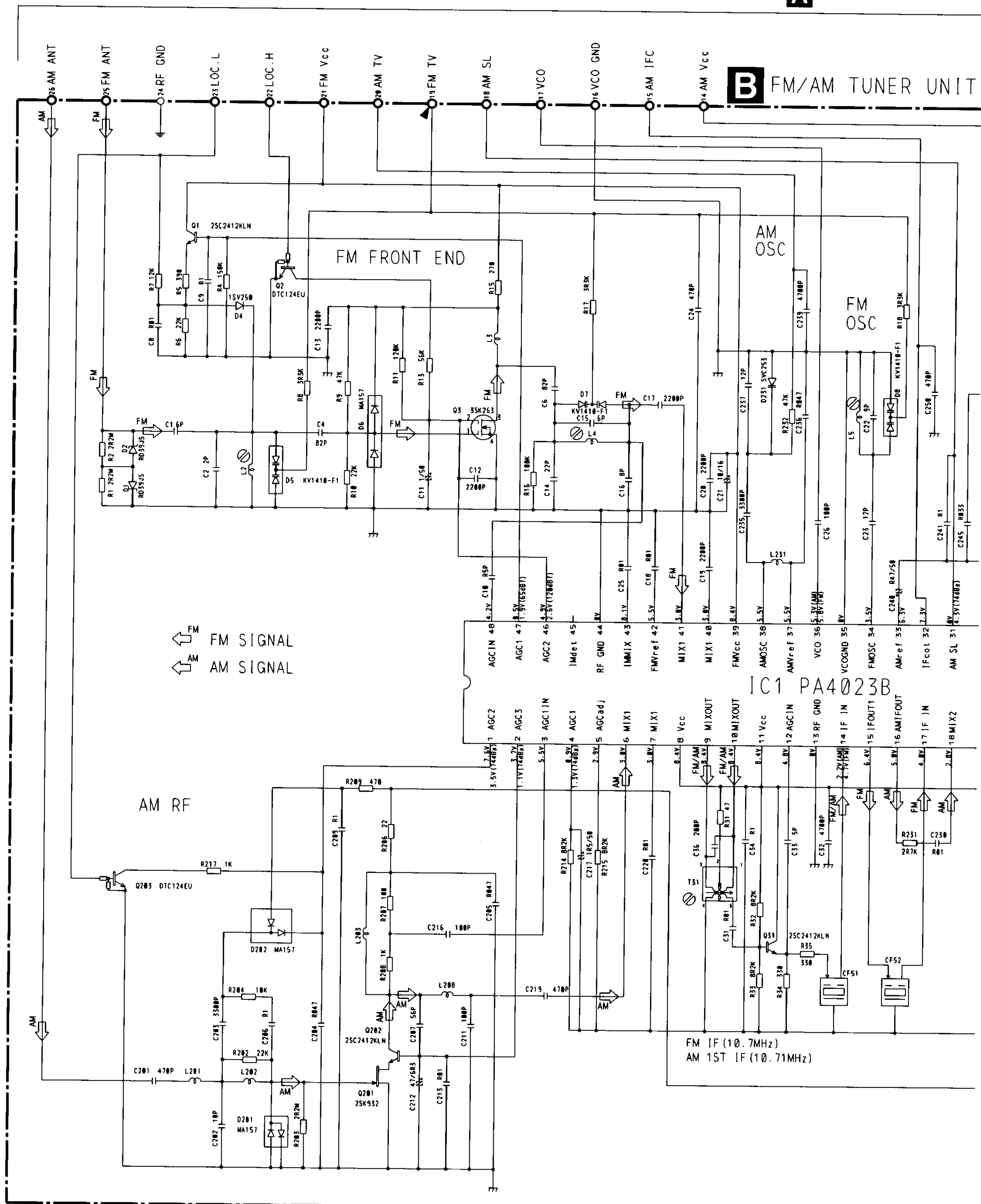
⑰ CH1: R OUT 1V/div. 0.2ms/div. ⑳ CH2: L OUT 1V/div. Normal mode: Play (1kHz 0dB) 	⑥ CH1: FEY 0.2V/div. 1ms/div. ③ CH2: FIN 0.5V/div. Normal mode: During AGC 	⑧ CH1: TEY 0.2V/div. 1ms/div. ⑨ CH2: TIN 0.5V/div. Normal mode: During AGC 
① CH1: RFO 1V/div. 0.5ms/div. ⑳ CH2: HOLD 5V/div. Normal mode: The defect part passes 800μm 	③ CH1: FIN 1V/div. 0.5ms/div. ⑳ CH2: HOLD 5V/div. Normal mode: The defect part passes 800μm 	

3.3 FM/AM TUNER UNIT(CWE1472)

A

B

FM/AM TUNER UNIT

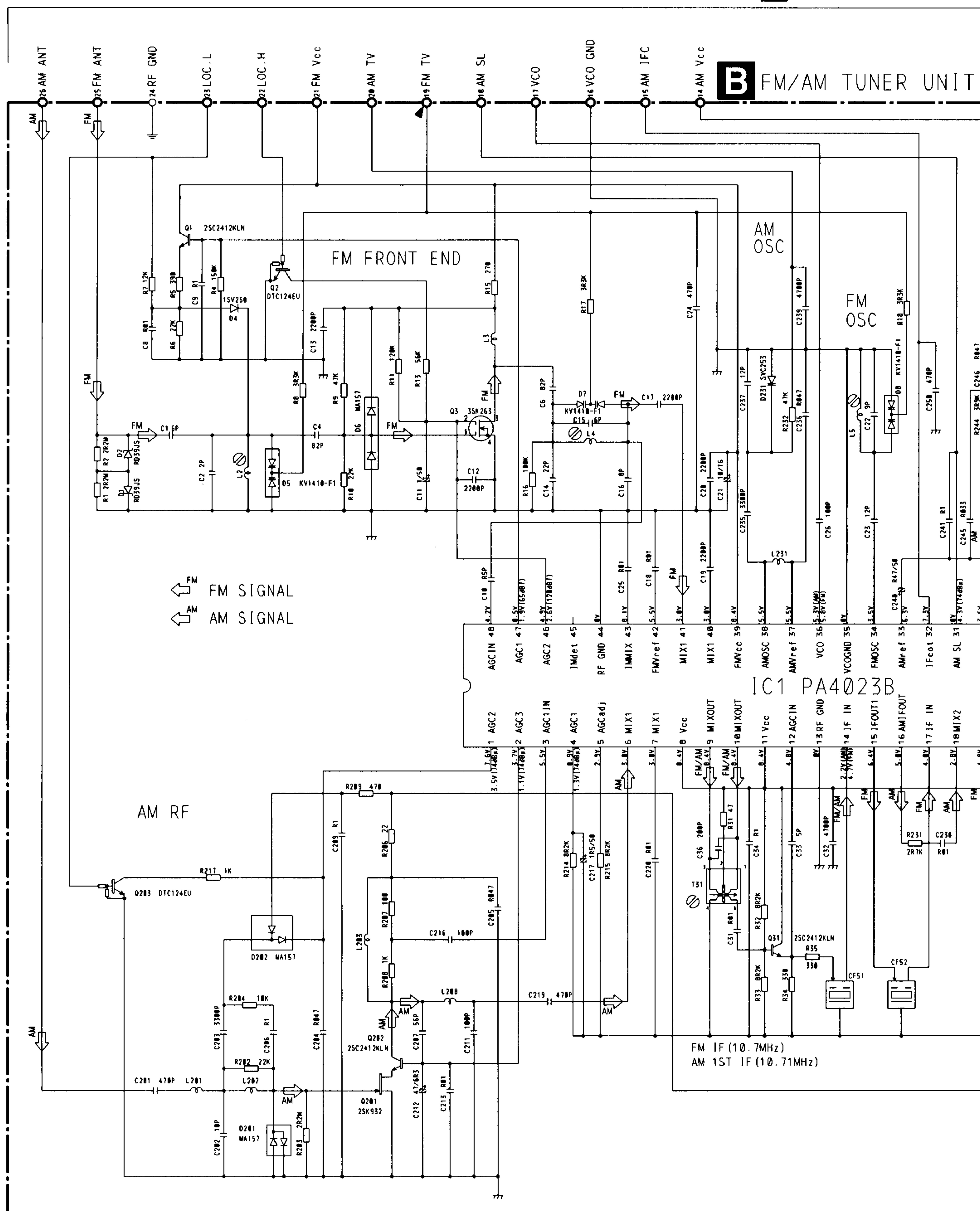


3.4 FM/AM TUNER UNIT(CWE1417)

A

B

FM/AM TUNER UNIT



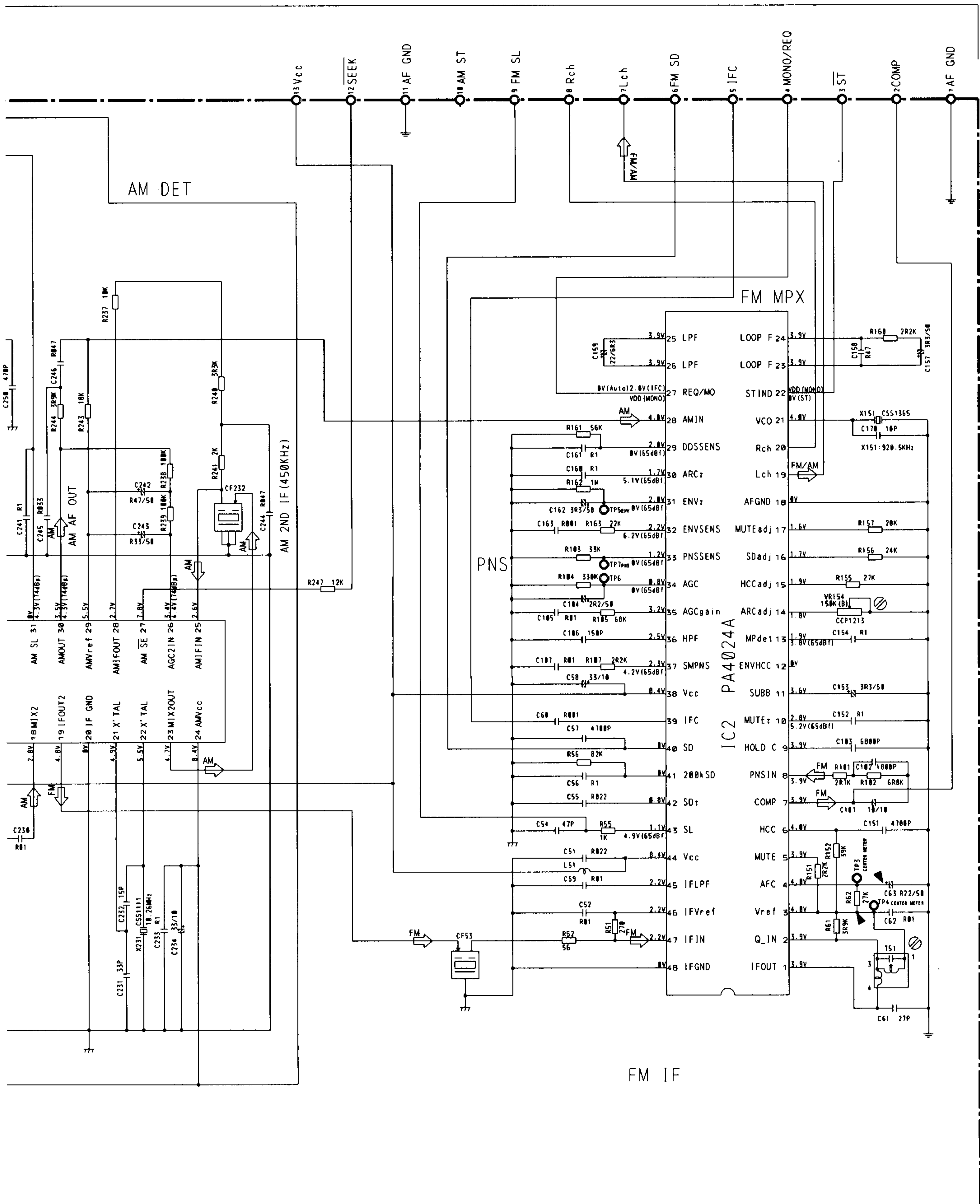
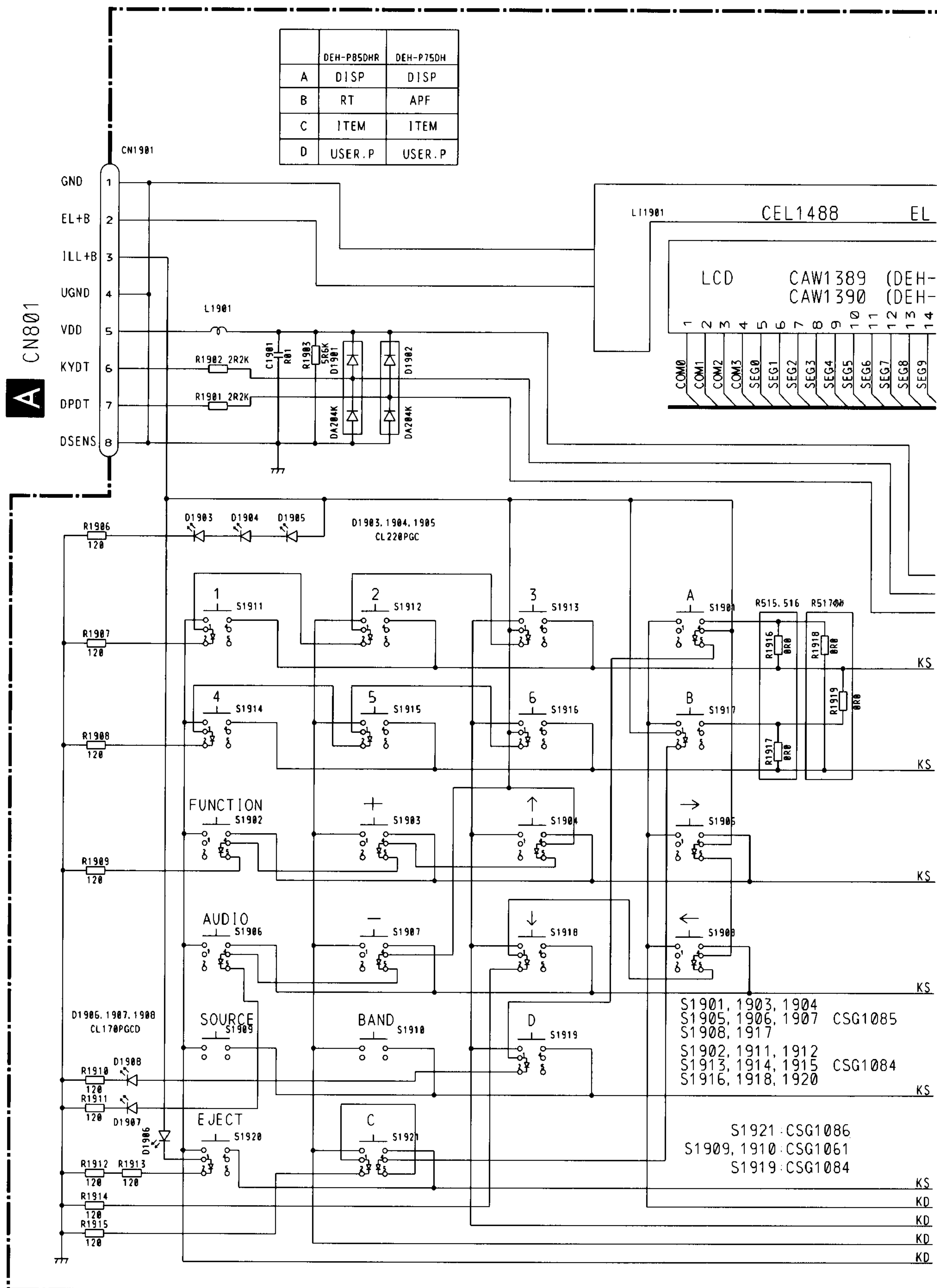


Fig. 13



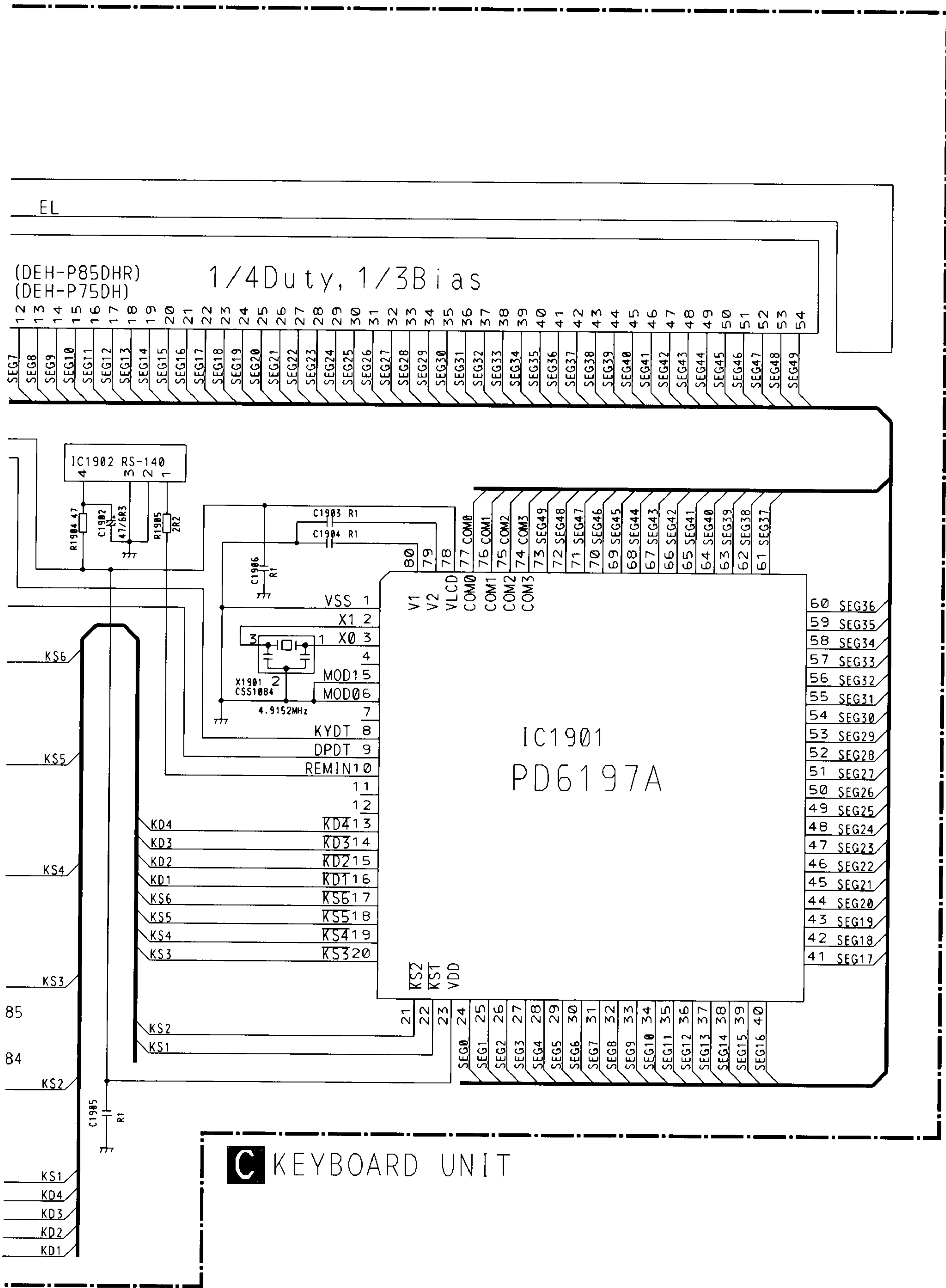


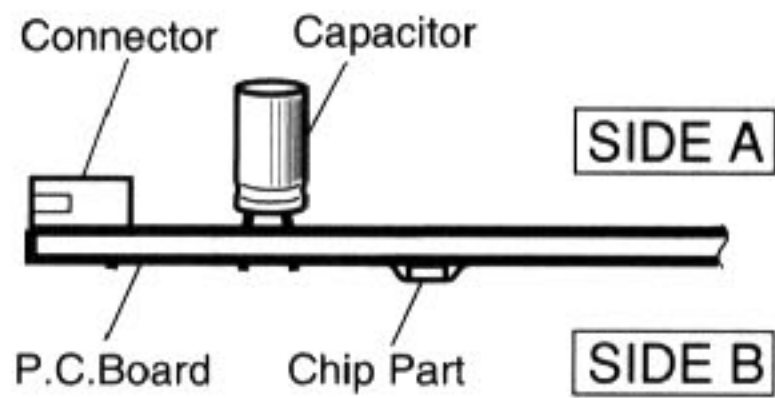
Fig. 14

4. PCB CONNECTION DIAGRAM

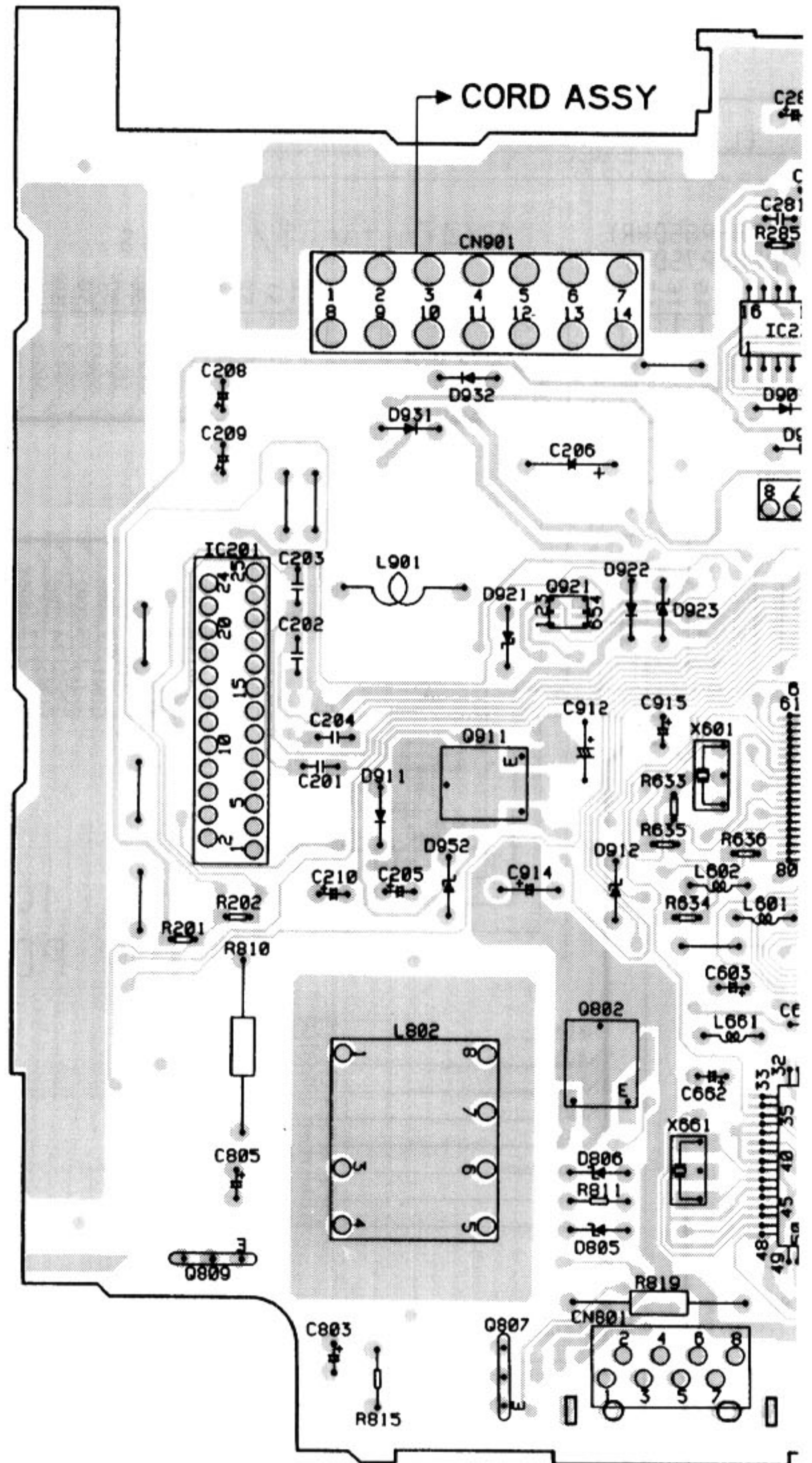
4.1 TUNER AMP PCB

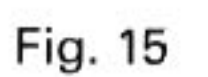
NOTE FOR PCB DIAGRAMS

- 1. The parts mounted on this PCB include all necessary parts for several destination.
- For further information for respective destinations, be sure to check with the schematic diagram.
- 2. Viewpoint of PCB diagrams



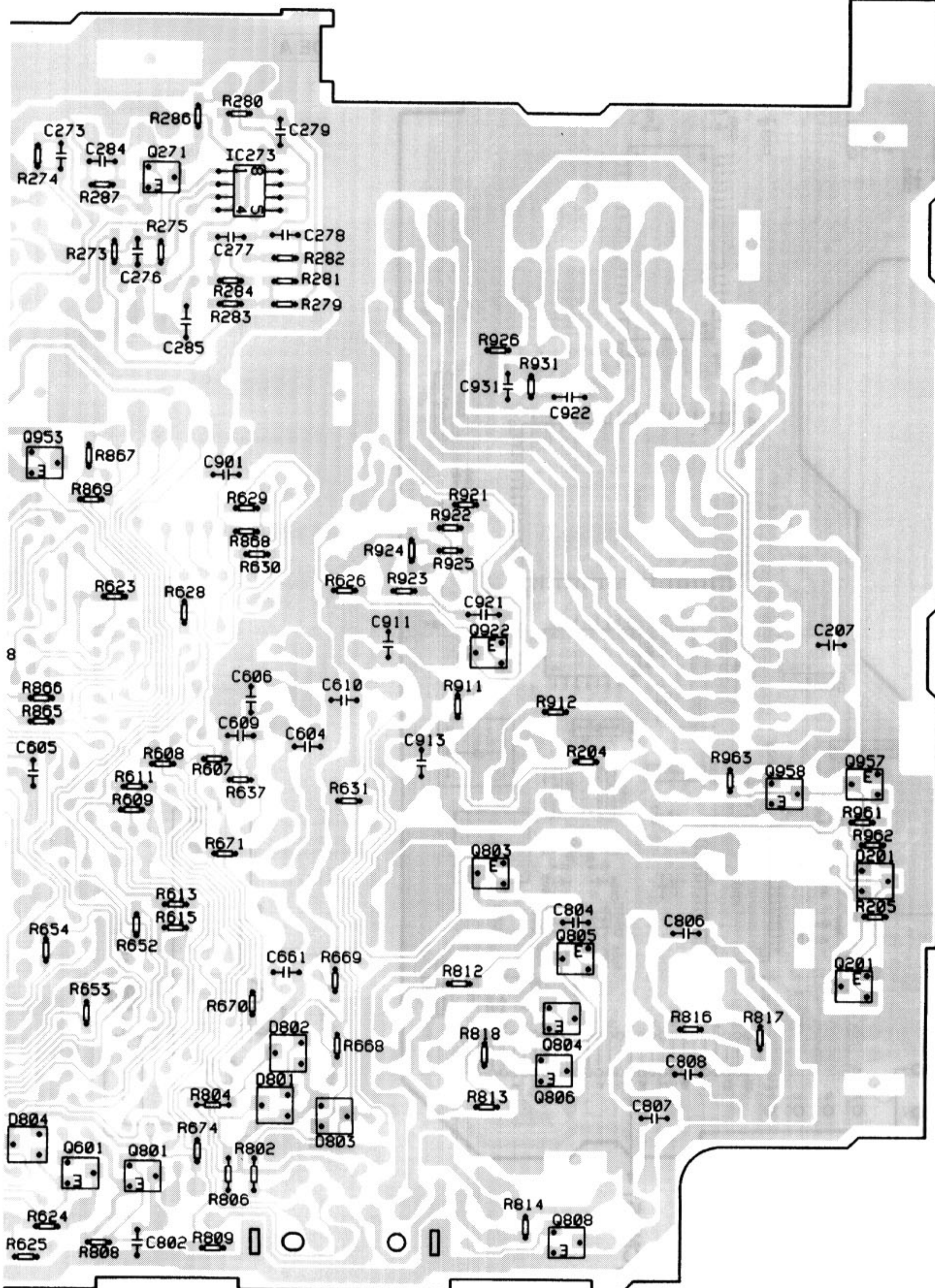
A		IC. 0
IC271	IC101	0101
IC272	IC102	0102
0952	0956	0503
0951	0955	0251
0251	0252	
IC201	0921	0502
0954		0302
0911	IC151	0301
		IC601
0802		
IC701		IC751
IC661		
0809	0972	
0861	IC941	
0807	0971	







SIDE B



IC, Q

Q271

Q953

Q501

Q922
IC501 Q253

Q958 Q957

Q803
IC731

Q805

Q201

Q804

Q941 Q806

Q601 Q801

Q808

Fig. 16

4.2 CONTROL UNIT,DETECTOR PCB

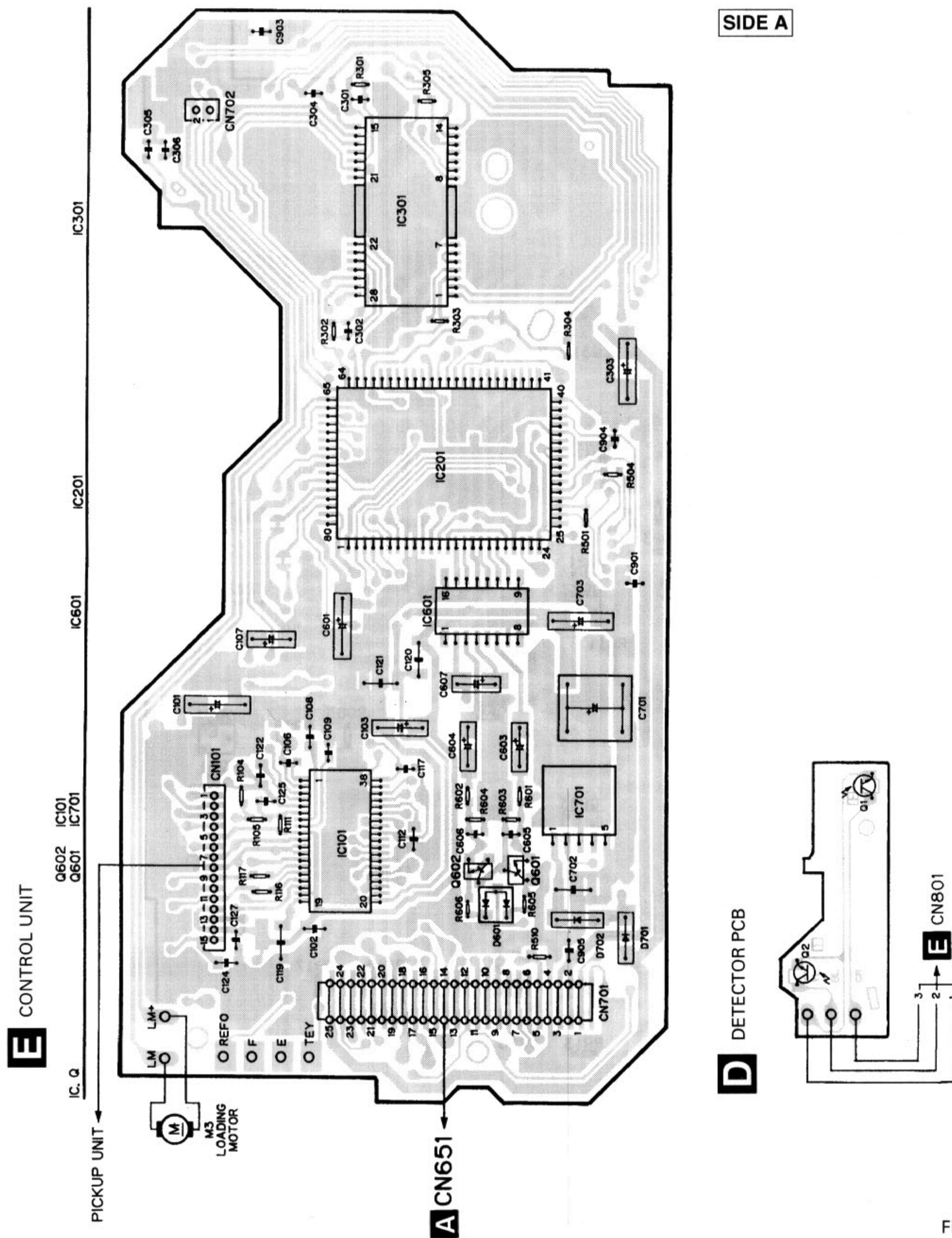


Fig. 17

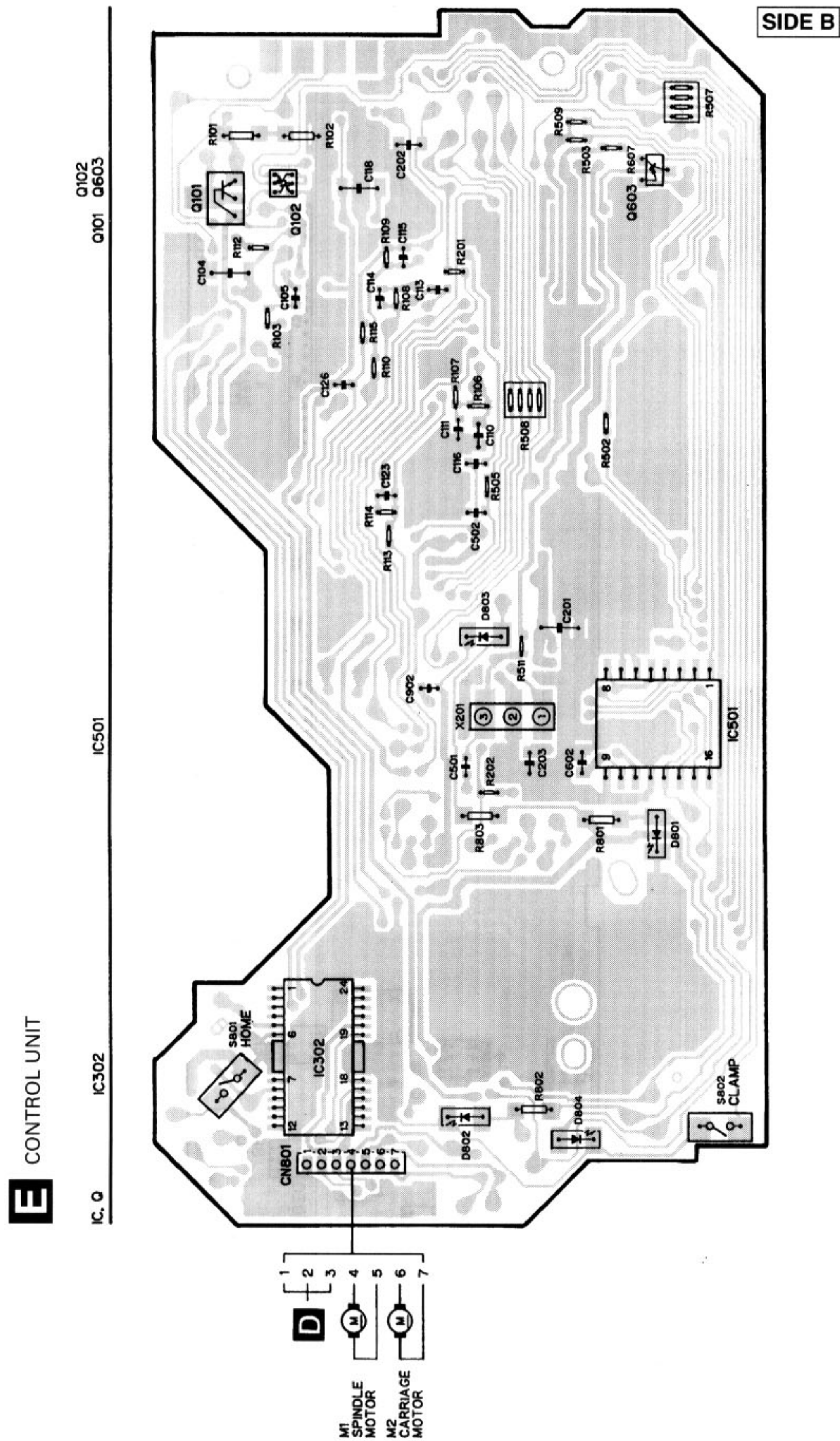
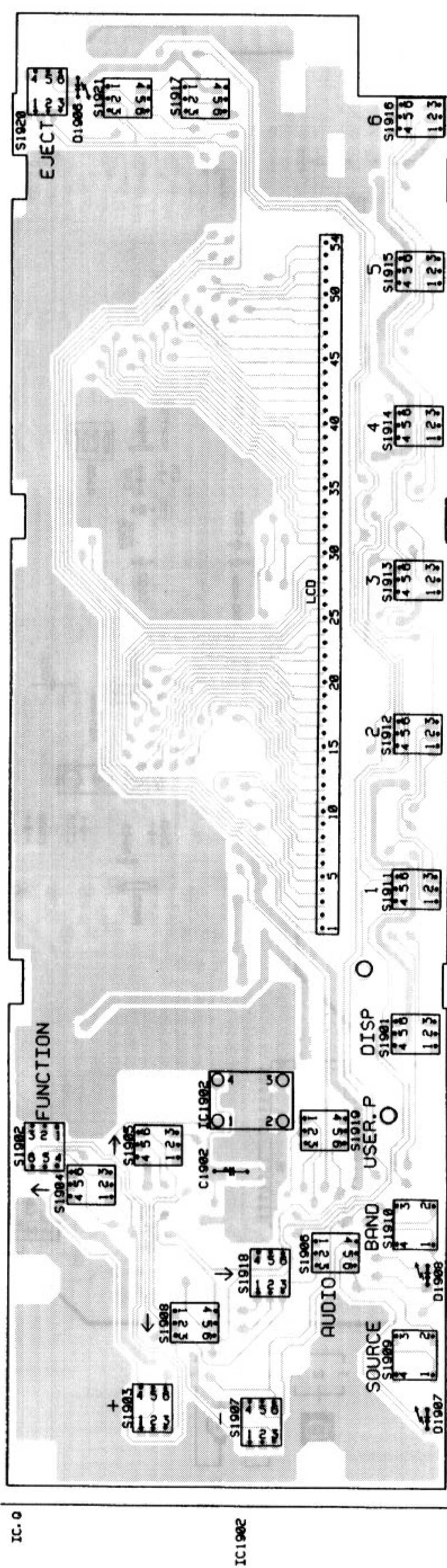


Fig. 18

4.3 KEYBOARD UNIT



SIDE A

Fig. 19

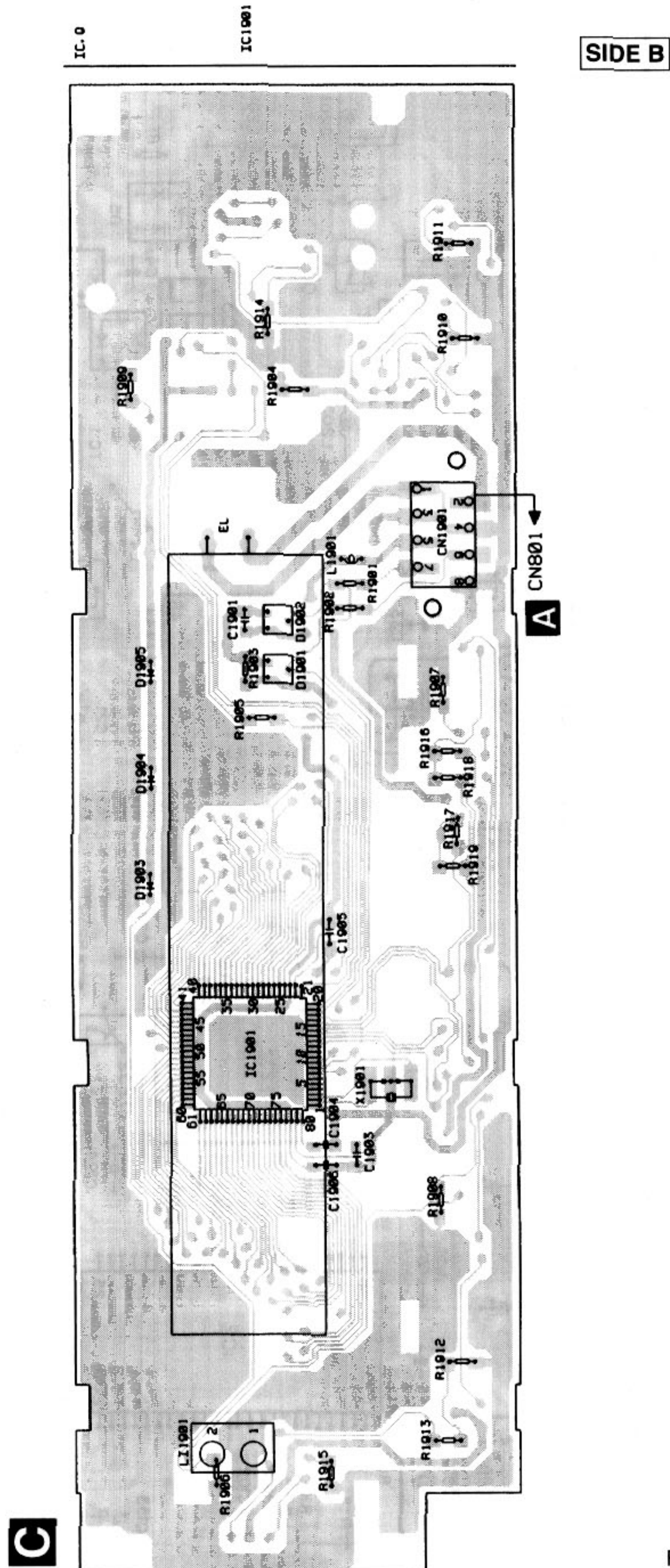


Fig. 20

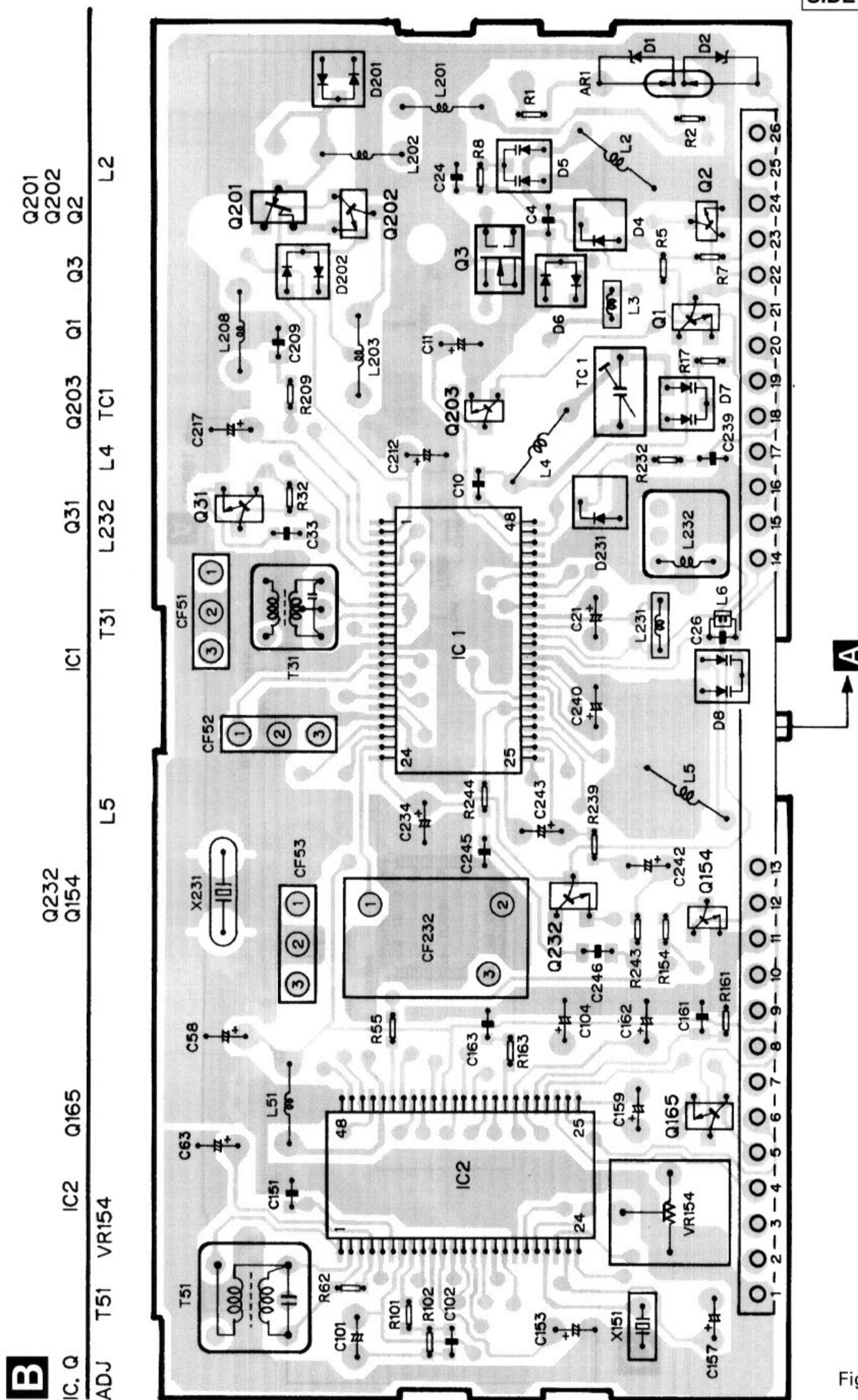


Fig. 21

SIDE B

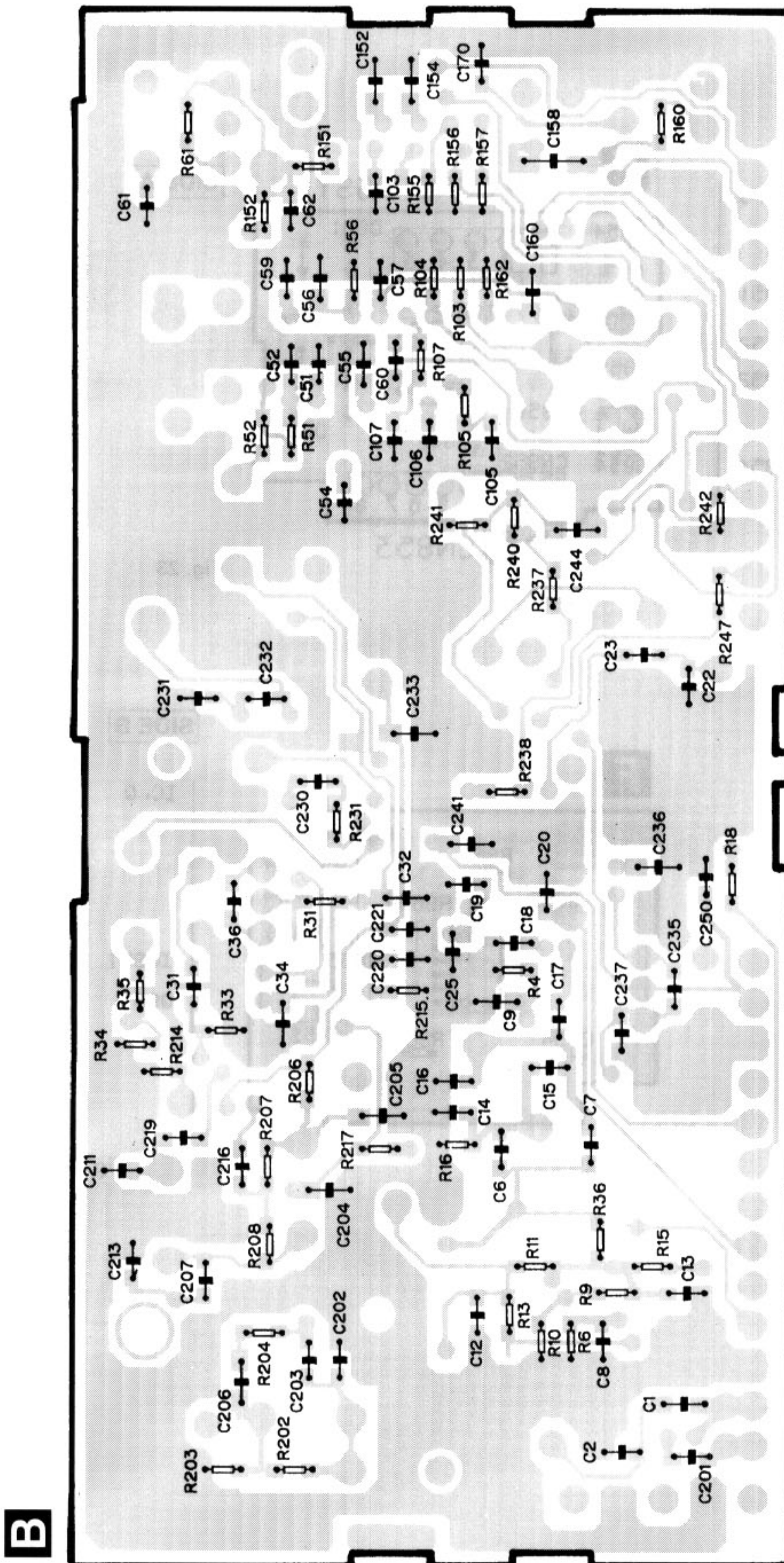


Fig. 22

4.5 DETACH ALARM UNIT

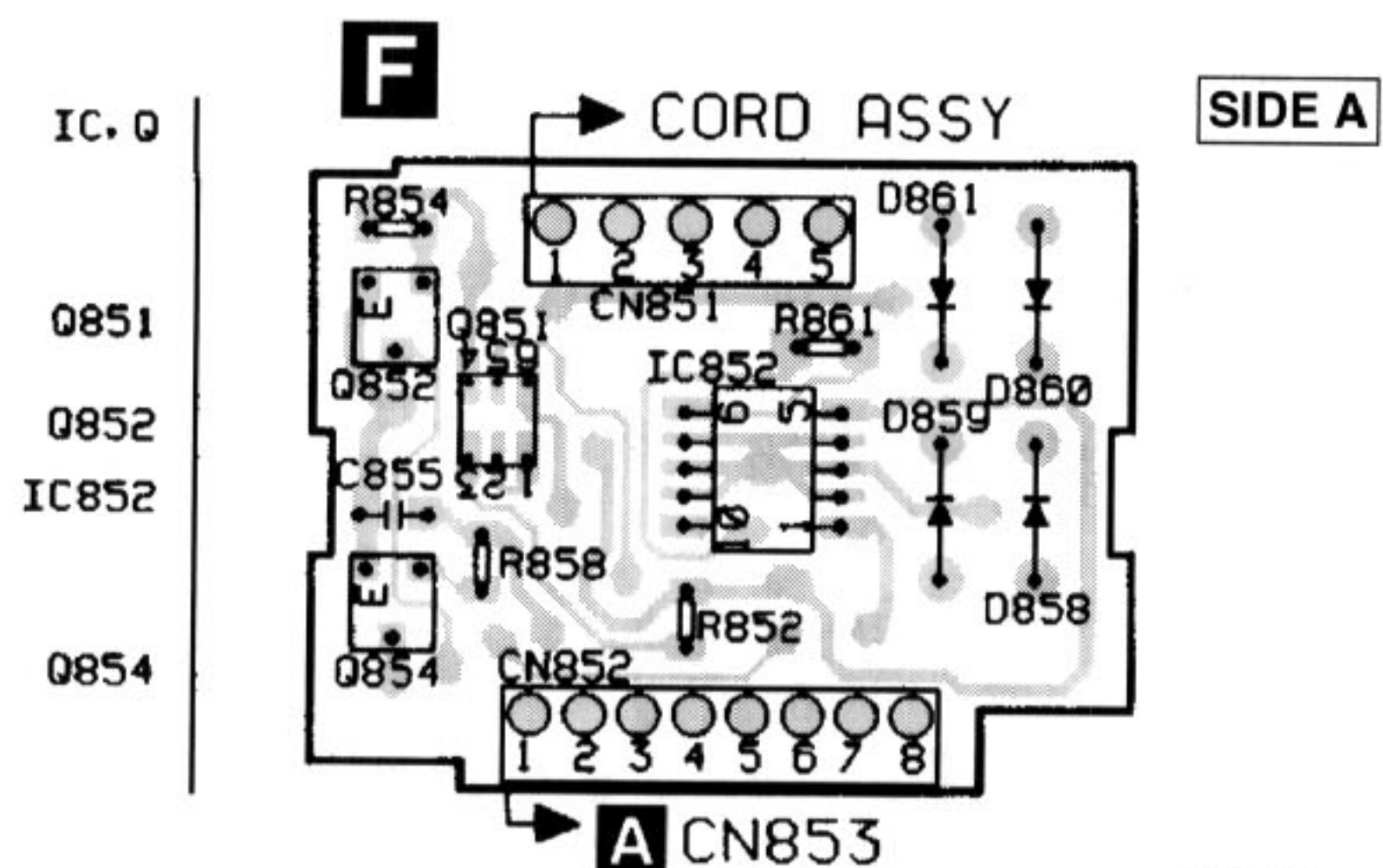


Fig. 23

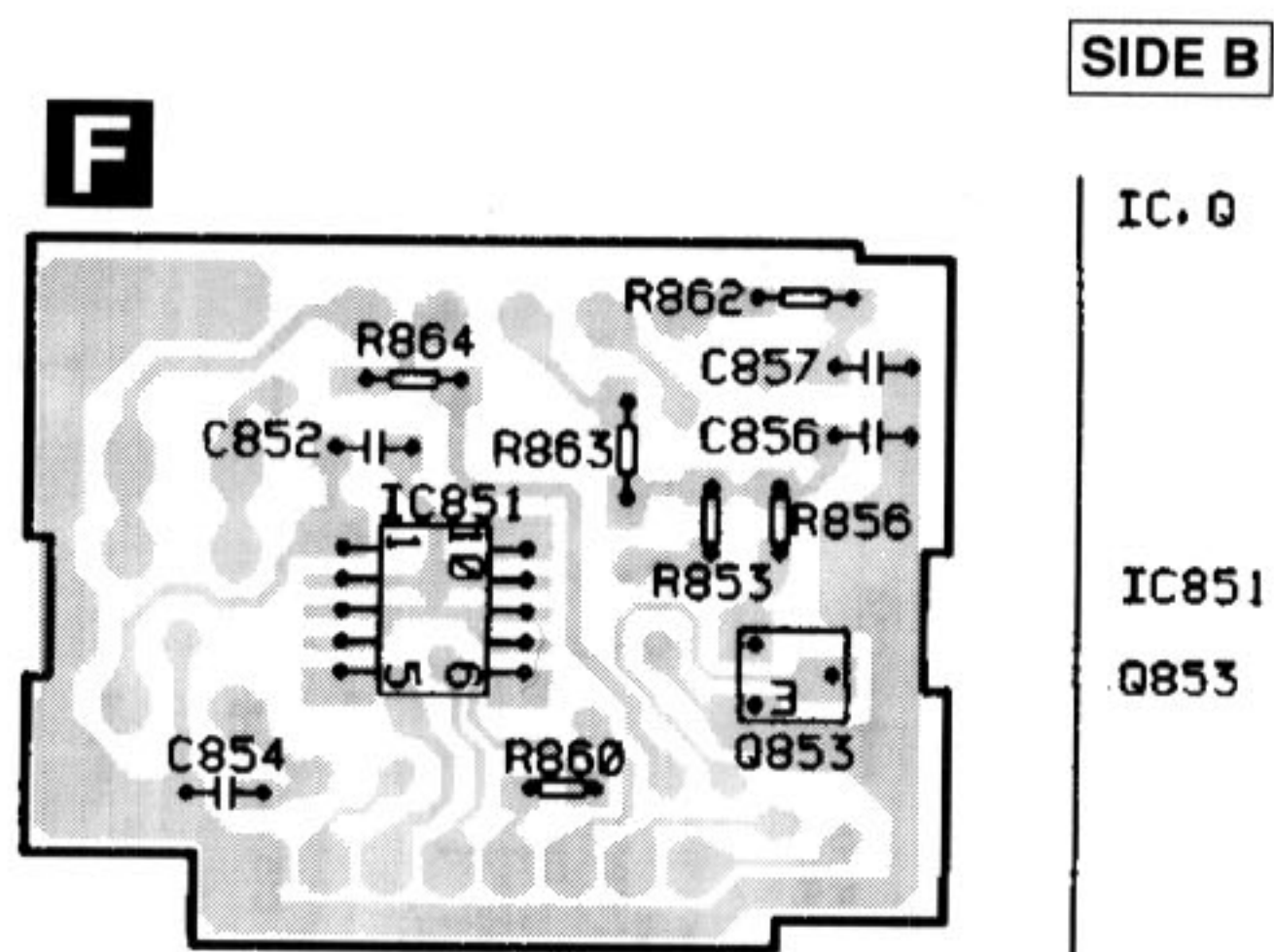


Fig. 24

5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/OSOOJ,RS1/OOSOOJ

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

====Circuit Symbol & No. Part	Name=====	Part No.	====Circuit Symbol & No. Part	Name=====	Part No.
B	Unit Number : CWE1472 (DEH-P85DHR)		R	5	RS1/16S391J
	Unit Number : CWE1417 (DEH-P75DH)		R	6	RS1/16S223J
	Unit Name : FM/AM Tuner Unit				
MISCELLANEOUS			R	7	RS1/16S123J
IC	1 IC	PA4023B	R	8	RS1/16S332J
IC	2 IC	PA4024A	R	9	RS1/16S473J
Q	1 Transistor	2SC2412KLN	R	10	RS1/16S223J
Q	2 Transistor	DTC124EU	R	11	RS1/16S124J
Q	3 FET	3SK263			
			R	13	RS1/16S563J
Q	31 Transistor	2SC2412KLN	R	15	RS1/16S271J
Q	201 FET	2SK932	R	16	RS1/16S104J
Q	202 Transistor	2SC2412KLN	R	17	RS1/16S332J
Q	203 Transistor	DTC124EU	R	18	RS1/16S332J
D	1 Diode	RD39JS()			
			R	31	RS1/16S470J
D	2 Diode	RD39JS	R	32	RS1/16S822J
D	4 Diode	1SV250	R	33	RS1/16S822J
D	5 Diode	KV1410-F1	R	34	RS1/16S331J
D	6 Diode	MA157	R	35	RS1/16S331J
D	7 Diode	KV1410-F1			
			R	51	RS1/16S271J
D	8 Diode	KV1410-F1	R	52	RS1/16S560J
D	201 Diode	MA157	R	55	RS1/16S102J
D	202 Diode	MA157	R	56	RS1/16S823J
D	231 Diode	SVC253	R	61	RS1/16S392J
L	2 Coil(DEH-P85DHR)	CTC1126			
			R	62	RS1/16S273J
L	2 Coil(DEH-P75DH)	CTC1108	R	101	RS1/16S272J
L	3 Inductor	LCTB2R2K2125	R	102	RS1/16S682J
L	4 Coil(DEH-P85DHR)	CTC1126	R	103	RS1/16S333J
L	4 Coil(DEH-P75DH)	CTC1108	R	104	RS1/16S334J
L	5 Coil(DEH-P85DH)	CTC1125			
			R	105	RS1/16S683J
L	5 Coil(DEH-P75DH)	CTC1107	R	107	RS1/16S222J
L	51 Ferri-Inductor	LAU150K	R	151	RS1/16S222J
L	201 Ferri-Inductor	LAU4R7K	R	152	RS1/16S393J
L	202 Ferri-Inductor	LAU330K	R	155	RS1/16S273J
L	203 Inductor	CTF1287			
			R	156	RS1/16S243J
L	208 Inductor	LAU121K	R	157	RS1/16S203J
L	231 Inductor	LCTA3R3J3225	R	160	RS1/16S222J
T	31 Coil	CTE1116	R	161	RS1/16S563J
T	51 Coil	CTC1136	R	162	RS1/16S105J
CF	51 Ceramic Filter(DEH-P85DHR)	CTF1292			
			R	163	RS1/16S223J
CF	51 Ceramic Filter(DEH-P75DH)	CTF1290	R	202	RS1/16S223J
CF	52 Ceramic Filter(DEH-P85DHR)	CTF1292	R	203	RS1/16S225J
CF	52 Ceramic Filter(DEH-P75DH)	CTF1290	R	204	RS1/16S103J
CF	53 Ceramic Filter(DEH-P85DHR)	CTF1292	R	206	RS1/16S220J
CF	53 Ceramic Filter(DEH-P75DH)	CTF1290			
			R	207	RS1/16S101J
CF	232 Ceramic Filter	CTF1348	R	208	RS1/16S102J
X	151 Resonator 920.5kHz	CSS1365	R	209	RS1/16S471J
X	231 Crystal Resonator 10.26MHz	CSS1111	R	214	RS1/16S822J
VR	154 Semi-fixed 150kΩ(B)	CCP1213	R	215	RS1/16S822J
RESISTORS			R	217	RS1/16S102J
			R	231	RS1/16S272J
R	1	RS1/16S225J	R	232	RS1/16S473J
R	2	RS1/16S225J	R	237	RS1/16S103J
R	4	RS1/16S154J	R	238	RS1/16S104J

DEH-P85DHR,P75DH

====Circuit Symbol & No. Part Name=====		Part No.	====Circuit Symbol & No. Part Name=====		Part No.
R	239	RS1/16S104J	C	202	CCSRCH100D50
R	240	RS1/16S332J	C	203	CKSRYB332K50
R	241	RS1/16S202J	C	204	CKSQYB473K16
R	243	RS1/16S183J	C	205	CKSQYB473K16
R	244	RS1/16S392J	C	206	CKSQYB104K16
R	247	RS1/16S123J	C	207	CCSRCH560J50
CAPACITORS			C	209	CKSQYB104K16
C	1	CCSQCH6R0D50	C	211	CCSRCH101J50
C	2	CCSRCK2R0C50	C	212	CEJA470M6R3
C	4	CCSRCH820J50	C	213	CKSRYB103K25
C	6	CCSRCH820J50	C	216	CCSRCH101J50
C	8	CKSRYB103K25	C	217	CEJA1R5M50
C	9	CKSQYB104K16	C	219	CCSRCH471J50
C	10	CCSRCKR50C50	C	220	CKSRYB103K25
C	11	CEJA1R0M50	C	230	CKSRYB103K25
C	12	CKSRYB222K50	C	231	CCSRCH330J50
C	13	CKSRYB222K50	C	232	CCSRCH150J50
C	14	CCSRCH220J50	C	233	CKSQYB104K16
C	15	CCSRCH6R0D50	C	234	CEJA330M10
C	16	CCSRCH8R0D50	C	235	CKSRYB332K50
C	17	CKSRYB222K50	C	236	CKSQYB473K16
C	18	CKSRYB103K25	C	237	CCSRCH120J50
C	19	CKSRYB222K50	C	239	CKSRYB472K50
C	20	CKSRYB222K50	C	240	CEJAR47M50
C	21	CEJA100M16	C	241	CKSQYB104K16
C	22	CCSRTH9R0D50	C	242	CEJAR47M50
C	23	CCSRTH120J50	C	243	CEJAR33M50
C	24	CCSRCH471J50	C	244	CKSQYB473K16
C	25	CKSRYB103K25	C	245	CKSRYB333K16
C	26	CCSRCH101J50	C	246	CKSQYB473K16
C	31	CKSRYB103K25	C	250	CCSRCH471J50
C	32	CKSQYB472K50	E Unit Number : CWX1889 Unit Name : Control Unit		
C	33	CCSRCH5R0C50	MISCELLANEOUS		
C	34	CKSQYB104K16	IC	101	UPC2572GS
C	36	CCSRRH201J50	IC	201	UPD63702GF
C	51	CKSRYB223K25	IC	301	XLA6997FP
C	52	CKSRYB103K25	IC	302	XLA6285FP
C	54	CCSRCH470J50	IC	601	TA2063F
C	55	CKSQYB223K25			
C	56	CKSQYB104K16	IC	701	PQ05TZ51
C	57	CKSRYB472K50	Q	101	2SD1664
C	58	CEJA330M10	Q	102	UMD2N
C	59	CKSRYB103K25	Q	601	2SD1781K
C	60	CKSRYB102K50	Q	602	2SD1781K
C	61	CCSRCH270J50			
C	62	CKSRYB103K25	Q	603	2SB709A
C	63	CEJAR22M50	D	601	MA151WA
C	101	CEJANP100M10	D	701	1SR154-400
C	102	CKSRYB182K50	D	702	1SR154-400
C	103	CKSRYB682K25	D	801	CL200IRX
C	104	CEJA2R2M50			
C	105	CKSRYB103K25	D	802	CL200IRX
C	106	CCSRCH151J50	X	201	CSS1363
C	107	CKSRYB103K25	S	801	CSN1028
C	151	CKSRYB472K50	S	802	CSN1028
C	152	CKSQYB104K16	RESISTORS		
C	153	CEJA3R3M50	R	101	RS1/8S100J
C	154	CKSQYB104K16	R	102	RS1/8S120J
C	157	CEJA3R3M50	R	103	RS1/16S102J
C	158	CKSYB474K16	R	104	RS1/16S822J
C	159	CEJA220M6R3	R	105	RS1/16S682J
C	160	CKSQYB104K16			
C	161	CKSQYB104K16	R	106	RS1/16S183J
C	162	CEJA3R3M50	R	107	RS1/16S822J
C	163	CKSRYB102K50	R	108	RS1/16S333J
C	170	CCSRCH100D50	R	109	RS1/16S683J
C	201	CCSRCH471J50	R	110	RS1/16S134J

====Circuit Symbol & No. Part Name=====	Part No.
R 111	RS1/16S273J
R 112	RS1/16S222J
R 113	RS1/16S103J
R 114	RS1/16S103J
R 115	RS1/16S102J
R 116	RS1/16S163J
R 117	RS1/16S163J
R 201	RS1/16S104J
R 202	RS1/16S473J
R 304	RS1/16S0R0J
R 501	RS1/16S0R0J
R 505	RS1/16S102J
R 507	RA4C102J
R 508	RA4C681J
R 510	RS1/10S0R0J
R 601	RS1/16S102J
R 602	RS1/16S102J
R 603	RS1/16S223J
R 604	RS1/16S223J
R 605	RS1/16S162J
R 606	RS1/16S162J
R 607	RS1/16S103J
R 801	RS1/8S751J
R 802	RS1/8S751J

CAPACITORS

C 101	CEV101M6R3
C 102	CKSQYB104K16
C 103	CEV470M6R3
C 104	CKSYB334K16
C 105	CCSRCH330J50
C 106	CKSRYB103K25
C 107	CEV4R7M35
C 108	CKSQYB273K50
C 109	CCSRCH101J50
C 110	CKSQYB104K16
C 111	CKSRYB332K50
C 112	CKSQYB473K16
C 113	CKSRYB103K25
C 114	CKSRYB391K50
C 115	CCSRCH121J50
C 116	CKSRYB682K25
C 117	CKSRYB333K16
C 118	CKSYB334K16
C 119	CKSYB334K16
C 120	CKSYB334K16
C 121	CKSYB334K16
C 122	CKSQYB104K16
C 123	CKSRYB472K50
C 124	CKSQYB104K16
C 125	CCSRCH6R0D50
C 126	CKSRYB153K25
C 127	CCSRCH102J25
C 201	CKSYB334K16
C 202	CKSQYB104K16
C 203	CKSQYB104K16
C 303	CEV470M16
C 304	CKSRYB103K25
C 305	CKSRYB103K25
C 306	CKSRYB103K25
C 502	CKSRYB471K50
C 601	CEV101M6R3
C 602	CKSQYB104K16
C 603	CEV4R7M35
C 604	CEV4R7M35
C 605	CKSRYB152K50

====Circuit Symbol & No. Part Name=====	Part No.
C 606	CKSRYB152K50
C 607	CEV220M6R3
C 701	CCH1233
C 702	CKSYB334K16
C 703	CEV101M6R3
C 901	CCSRCH471J50
C 902	CCSRCH271J50
C 903	CCSRCH471J50
C 904	CCSRCH101J50

F Unit Number : CWM5291
Unit Name : Detach Alarm Unit

MISCELLANEOUS

IC 851	IC	TPD1018F
IC 852	IC	TPD1018F
Q 851	Transistor	IMD2A
Q 852	Transistor	DTC123EK
Q 853	Transistor	DTC123EK
Q 854	Transistor	DTC123EK
D 858	Diode	ERA15-02VH
D 859	Diode	ERA15-02VH
D 860	Diode	ERA15-02VH
D 861	Diode	ERA15-02VH

RESISTORS

R 852	RS1/10S103J
R 853	RS1/10S103J
R 854	RS1/10S163J
R 856	RS1/10S163J
R 858	RS1/10S163J
R 860	RS1/10S103J
R 861	RS1/10S103J
R 862	RS1/8S102J
R 863	RS1/8S102J
R 864	RS1/8S102J

CAPACITORS

C 852	CKSQYB473K25
C 854	CKSQYB473K25
C 855	CKSQYB103K50
C 856	CKSQYB103K50
C 857	CKSQYB103K50

A Unit Number : CWX2065(DEH-P85DHR)
Unit Name : Tuner Amp Unit

MISCELLANEOUS

IC 101	IC	TA2050S
IC 102	IC	CA0008AM
IC 151	IC	SN761027DL
IC 201	IC	TDA7384A
IC 271	IC	M5282FP
IC 272	IC	MC14052BF
IC 273	IC	NJM2068MD1
IC 501	IC	LC72146M
IC 601	IC	PD4722A
IC 661	IC	PD4623B
IC 701	IC	PD6191A
IC 731	IC	PMW001B
IC 751	IC	PD8027A
IC 941	IC	S-80734ANDYI
Q 101	Transistor	2SA1037K
Q 102	Transistor	DTC124EK
Q 201	Transistor	DTC124EK
Q 251	Transistor	IMH3A
Q 252	Transistor	IMH3A
Q 253	Transistor	IMD2A

====Circuit Symbol & No. Part Name=====			Part No.	====Circuit Symbol & No. Part Name=====			Part No.
Q	271	Transistor	DTC343TK	L	801	Ferri-Inductor	LAU2R2K
Q	301	Transistor	DTA124EK	L	802	Transformer	MTX9005
Q	302	Transistor	IMH3A	L	901	Choke Coil 600H	CTH1171
Q	501	Transistor	2SC2412K	X	501	7.2MHz	CSS1334
Q	502	Transistor	2SK208	X	601	Ceramic Resonator 6.29MHz	CSS1310
Q	503	Transistor	2SC2412K	X	661	Resonator 8.380MHz	CSS1354
Q	601	Transistor	DTC124EK	X	701	Crystal Resonator 4.332MHz	CSS1056
Q	661	Transistor	DTA124EK	S	941	Switch	CSG1059
Q	801	Transistor	2SA1037K			FM/AM Tuner Unit	CWE1472
Q	802	Transistor	2SD1760F5			Detach Alarm Unit	CWM5291
Q	803	Transistor	DTC114EK	BZ	601	Buzzer	CPV1011
Q	804	Transistor	DTA143EK	RESISTORS			
Q	805	Transistor	DTC114EK	R	101		RS1/10S620J
Q	806	Transistor	2SC2412K	R	102		RS1/10S101J
Q	807	Transistor	2SB1238	R	103		RS1/10S101J
Q	808	Transistor	DTC143EK	R	104		RS1/10S222J
Q	809	Transistor	2SD1864	R	105		RS1/10S122J
Q	911	Transistor	2SD1760F5	R	106		RS1/10S122J
Q	921	Transistor	IMX1	R	107		RS1/10S181J
Q	922	Transistor	DTC114EK	R	108		RS1/10S181J
Q	941	Transistor	DTA144TK	R	109		RS1/10S153J
Q	951	Transistor	2SD2396	R	110		RS1/10S153J
Q	952	Transistor	2SB1243				
Q	953	Transistor	DTC124EK	R	111		RS1/10S222J
Q	954	Transistor	2SA1674	R	112		RS1/10S222J
Q	955	Transistor	2SA1674	R	113		RS1/10S102J
Q	956	Transistor	IMH1A	R	114		RS1/10S102J
Q	957	Transistor	2SC2412K	R	115		RS1/10S473J
Q	958	Transistor	DTC144EK				
Q	971	Transistor	2SD2396	R	116		RS1/10S473J
Q	972	Transistor	IMD2A	R	117		RS1/10S332J
D	201	Diode	DAN202K	R	118		RS1/10S682J
D	501	Diode	DAN202K	R	119		RS1/10S103J
D	502	Diode	HZS3LL(B)	R	133		RS1/10S162J
D	731	Diode	MA3047(M)	R	134		RS1/10S162J
D	801	Diode	DA204K	R	151		RS1/10S272J
D	802	Diode	DA204K	R	152		RS1/10S272J
D	803	Diode	DA204K	R	153		RS1/10S151J
D	804	Diode	MA3062(M)	R	154		RS1/10S151J
D	805	Diode	HZS9L(B3)				
D	806		HZS5LL(A)	R	201		RS1/10S103J
D	851	LED	BR4361F	R	202		RS1/10S331J
D	901	Diode	ERA15-02VH	R	204		RS1/10S103J
D	902	Diode	ERA15-02VH	R	205		RS1/10S103J
D	911	Diode	ERA15-02VH	R	251		RS1/10S821J
D	912	Diode	HZS6L(B1)	R	252		RS1/10S821J
D	921	Diode	HZS7L(C3)	R	253		RS1/10S471J
D	922	Diode	1SS133	R	254		RS1/10S471J
D	923	Diode	HZS7L(A1)	R	255		RS1/10S223J
D	931	Diode	ERA15-02VH	R	256		RS1/10S223J
D	932	Diode	ERA15-02VH	R	257		RS1/10S223J
D	941	Diode	DAN212K	R	258		RS1/10S223J
D	951	Diode	HZS9L(B3)	R	271		RS1/10S183J
D	952	Diode	HZS9L(A2)	R	272		RS1/10S183J
D	953	Diode	1SS133	R	273		RS1/10S103J
D	971	Diode	HZS9L(B1)	R	274		RS1/10S243J
L	101	Inductor	LAU3R3K	R	275		RS1/10S683J
L	501	Ferri-Inductor	LAU2R2K	R	276		RS1/10S473J
L	502	Ferri-Inductor	LAU220K	R	277		RS1/10S103J
L	601	Ferri-Inductor	LAU2R2K	R	278		RS1/10S103J
L	602	Inductor	LAU100K	R	279		RS1/10S104J
L	661	Ferri-Inductor	LAU2R2K	R	280		RS1/10S104J
L	701	Inductor	LAU100K	R	281		RS1/10S104J
L	731	Ferri-Inductor	LAU2R2K	R	282		RS1/10S104J
L	751	Inductor	LAU100K	R	283		RS1/10S104J
				R	284		RS1/10S104J
				R	285		RS1/10S105J
				R	286		RS1/10S821J
				R	287		RS1/10S223J
				R	301		RS1/10S471J

====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.
R 302	RS1/10S471J	R 701	RS1/10S681J
R 303	RS1/10S104J	R 702	RS1/10S681J
R 304	RS1/10S104J	R 703	RS1/10S222J
R 501	RS1/10S102J	R 704	RS1/10S105J
R 502	RS1/10S102J	R 705	RS1/10S681J
R 503	RS1/10S102J	R 706	RS1/10S0R0J
R 506	RS1/10S103J	R 710	RS1/10S473J
R 508	RS1/10S472J	R 711	RA3C681J
R 509	RS1/10S152J	R 712	RS1/10S0R0J
R 510	RS1/10S102J	R 713	RS1/10S473J
R 511	RS1/10S472J	R 714	RA4C473J
R 512	RS1/10S103J	R 731	RA3C102J
R 513	RS1/10S102J	R 732	RS1/10S681J
R 514	RS1/10S0R0J	R 733	RS1/10S393J
R 515	RS1/10S103J	R 735	RS1/10S102J
R 516	RS1/10S222J	R 736	RD1/4PU151J
R 517	RS1/10S473J	R 751	RS1/10S473J
R 518	RS1/10S473J	R 752	RS1/10S473J
R 519	RS1/10S473J	R 753	RS1/10S473J
R 520	RS1/10S224J	R 802	RS1/8S222J
R 521	RS1/10S473J	R 804	RS1/8S472J
R 522	RS1/10S473J	R 806	RS1/8S472J
R 523	RS1/10S472J	R 808	RS1/10S472J
R 524	RS1/10S472J	R 809	RS1/10S472J
R 525	RS1/10S222J	R 810	RS2PMF100J
R 526	RS1/10S223J	R 811	RD1/4PU471J
R 601	RS1/10S473J	R 812	RS1/10S103J
R 602	RS1/10S473J	R 813	RS1/10S224J
R 603	RS1/10S473J	R 814	RS1/10S222J
R 604	RS1/10S473J	R 815	RD1/4PU102J
R 605	RS1/10S473J	R 816	RS1/10S391J
R 606	RS1/10S473J	R 817	RS1/10S752J
R 607	RS1/10S473J	R 818	RS1/10S104J
R 608	RS1/10S221J	R 819	RS2P300JL
R 609	RS1/10S682J	R 851	RS1/8S331J
R 610	RA4C221J	R 865	RS1/10S103J
R 611	RS1/10S682J	R 866	RS1/10S102J
R 613	RS1/10S682J	R 867	RS1/10S473J
R 615	RS1/10S682J	R 868	RS1/10S473J
R 617	RA4C681J	R 869	RS1/10S473J
R 623	RS1/10S473J	R 911	RS1/10S332J
R 624	RS1/10S102J	R 912	RS1/10S101J
R 625	RS1/10S202J	R 921	RS1/10S103J
R 626	RS1/10S473J	R 922	RS1/10S473J
R 627	RS1/10S473J	R 923	RS1/10S103J
R 628	RS1/10S473J	R 924	RS1/10S103J
R 629	RS1/10S473J	R 925	RS1/10S473J
R 630	RS1/10S222J	R 926	RS1/10S472J
R 631	RS1/10S473J	R 931	RS1/10S103J
R 633	RS1/10S473J	R 941	RS1/10S102J
R 634	RS1/10S473J	R 942	RS1/10S822J
R 637	RS1/10S393J	R 943	RS1/8S471J
R 651	RS1/10S681J	R 944	RS1/10S473J
R 652	RS1/10S102J	R 951	RD1/4PU221J
R 653	RS1/10S102J	R 952	RD1/4PU301J
R 654	RS1/10S102J	R 953	RS1/10S1R0J
R 662	RS1/10S473J	R 954	RD1/4PU331J
R 663	RS1/10S222J	R 955	RD1/4PU331J
R 668	RS1/10S103J	R 956	RS1/8S472J
R 669	RS1/10S203J	R 957	RD1/4PU102J
R 670	RS1/10S222J	R 958	RS1/10S472J
R 671	RS1/10S473J	R 959	RD1/4PU102J
R 672	RS1/10S222J	R 960	RS1/10S472J
R 673	RS1/10S473J	R 961	RS1/10S103J
R 674	RS1/10S473J	R 962	RS1/10S473J

====Circuit Symbol & No. Part	Name=====	Part No.	====Circuit Symbol & No. Part	Name=====	Part No.
R	963	RS1/10S473J	C	279	CKSQYB273K25
R	971	RD1/4PU221J	C	280	CKSQYB103K50
R	972	RS1/10S221J	C	281	CKSQYB223K25
R	973	RS1/10S472J	C	282	CKSQYB153K50
R	974	RS1/8S122J	C	283	CEAS4R7M25
CAPACITORS			C	284	CKSQYB104K16
C	103	CEJA1R0M50	C	285	CKSYB105K16
C	104	CEJA1R0M50	C	301	CEJA3R3M50
C	105	CEJA1R0M50	C	302	CEJA3R3M50
C	106	CEJA1R0M50	C	501	CKSQYB223K25
C	107	CEJA100M16	C	502	CKSQYB223K25
C	108	CKSQYB473K25	C	503	CKSQYB103K50
C	109	CKSQYB104K16	C	504	CKSQYB103K50
C	131	CEJA4R7M35	C	505	CKSQYB103K50
C	132	CEJA4R7M35	C	506	CKSQYB473K25
C	133	CKSQYB473K25	C	507	CKSQYB102K50
C	134	CKSQYB473K25	C	509	CKLSR473K16
C	135	CEJA4R7M35	C	510	CKSQYB103K50
C	136	CEJA4R7M35	C	512	CEJA100M16
C	137	CEJA4R7M35	C	513	CKSQYB103K50
C	138	CEJA4R7M35	C	514	CCSQCH101J50
C	151	CKSQYB104K16	C	515	CCSQCH101J50
C	152	CEAS470M10	C	516	CKSQYB103K50
C	153	CEJANP100M10	C	518	CCH1250
C	154	CEJANP100M10	C	519	CKSQYB103K50
C	155	CKSQYB822K50	C	520	CCSQCH150J50
C	156	CKSQYB822K50	C	521	CCSQCH150J50
C	157	CEJA1R0M50	C	522	CKSQYB223K25
C	158	CEJA1R0M50	C	603	CEJA100M16
C	159	CKSQYB183K25	C	604	CKSQYB103K50
C	160	CKSQYB183K25	C	605	CCSQCH101J50
C	161	CKSQYB102K50	C	606	CCSQCH101J50
C	162	CKSQYB102K50	C	607	CASA1R0M16
C	163	CEJANP2R2M35	C	609	CCSQCH101J50
C	164	CEJANP2R2M35	C	661	CCSQCH101J50
C	165	CKSQYB333K25	C	662	CEJA4R7M35
C	166	CKSQYB333K25	C	663	CKSQYB104K16
C	167	CEJA220M6R3	C	664	CKSQYB473K25
C	168	CEJA2R2M50	C	702	CCSQCH270J50
C	169	CKSQYB104K16	C	703	CCSQCH270J50
C	201	CKSYB224K16	C	705	CKSYB473K16
C	202	CKSYB224K16	C	706	CKSQYB473K25
C	203	CKSYB224K16	C	708	CKSQYB104K16
C	204	CKSYB224K16	C	731	CEJA100M16
C	205	CEHAR010M50	C	733	CKSQYB102K50
C	206	CCH1163	C	734	CKSQYB472K50
C	207	CKSQYB103K50	C	735	CKSQYB104K16
C	208	CEHAR100M16	C	736	CKSYB105K16
C	209	CEHAR010M50	C	737	CKSQYB104K16
C	210	CEHAR330M10	C	738	CEJA100M16
C	251	CEJA4R7M35	C	751	CEJA100M16
C	252	CEJA4R7M35	C	752	CKSQYB103K50
C	253	CEJA4R7M35	C	753	CKSYB103K50
C	254	CEJA4R7M35	C	801	CKSYB104K16
C	255	CKSQYB221K50	C	802	CCSQCH101J50
C	256	CKSQYB221K50	C	803	CEHAR100M16
C	257	CKSQYB221K50	C	804	CKSQYB103K50
C	258	CKSQYB221K50	C	805	CEHAR100M16
C	271	CEAS220M10	C	806	CKSQYB103K50
C	272	CEAS101M10	C	807	CKSQYB333K25
C	273	CKSQYB472K50	C	808	CKSQYB333K25
C	274	CEJA4R7M35	C	858	CKSQYB473K25
C	275	CEJANP220M10	C	901	CKSQYB103K50
C	276	CKSQYB222K50	C	911	CKSQYB103K50
C	277	CKSQYB183K25	C	912	CCL1037
C	278	CKSQYB473K25			

====Circuit Symbol & No. Part Name=====		Part No.
C	913	CKSQYB472K50
C	914	CEHAQ102M16
C	915	CEAS470M10
C	921	CKSYB105K16
C	922	CKSYB102K50
C	931	CKSQYB473K25
C	941	CEJA2R2M50
C	951	CKSQYB103K50
C	952	CEHAQ101M16
C	953	CKSQYB103K50
C	954	330 μ F/10V
C	971	CCH1181
C	972	CKSQYB473K25
C	973	CKSQYB102K50
		CEAS101M10



MISCELLANEOUS

IC	101	IC	TA2050S
IC	102	IC	CA0008AM
IC	151	IC	SN761027DL
IC	201	IC	TDA7384A
IC	501	IC	LC72146M
IC	601	IC	PD4754A
IC	661	IC	PD4623B
IC	701	IC	PD6194A
IC	751	IC	PD8027A
IC	941	IC	S-80734ANDYI
Q	101	Transistor	2SA1037K
Q	102	Transistor	DTC124EK
Q	201	Transistor	DTC124EK
Q	251	Transistor	IMH3A
Q	252	Transistor	IMH3A
Q	253	Transistor	IMD2A
Q	301	Transistor	DTA124EK
Q	302	Transistor	IMH3A
Q	501	Transistor	2SC2412K
Q	502	Transistor	2SK208
Q	503	Transistor	2SC2412K
Q	601	Transistor	DTC124EK
Q	661	Transistor	DTA124EK
Q	801	Transistor	2SA1037K
Q	802	Transistor	2SD1760F5
Q	803	Transistor	DTC114EK
Q	804	Transistor	DTA143EK
Q	805	Transistor	DTC114EK
Q	806	Transistor	2SC2412K
Q	807	Transistor	2SB1238
Q	808	Transistor	DTC143EK
Q	809	Transistor	2SD1864
Q	911	Transistor	2SD1760F5
Q	921	Transistor	IMX1
Q	922	Transistor	DTC114EK
Q	941	Transistor	DTA144TK
Q	951	Transistor	2SD2396
Q	952	Transistor	2SB1243
Q	953	Transistor	DTC124EK
Q	954	Transistor	2SA1674
Q	955	Transistor	2SA1674
Q	956	Transistor	IMH1A
Q	957	Transistor	2SC2412K
Q	958	Transistor	DTC144EK
Q	971	Transistor	2SD2396

Circuit Symbol & No. Part Name=====			Part No.
Q	972	Transistor	IMD2A
D	201	Diode	DAN202K
D	501	Diode	DAN202K
D	502	Diode	HZS3LL(B)
D	801	Diode	DA204K
D	802	Diode	DA204K
D	803	Diode	DA204K
D	804	Diode	MA3062(M)
D	805	Diode	HZS9L(B3)
D	806	Diode	HZS5LL(A)
D	851	LED	BR4361F
D	901	Diode	ERA15-02VH
D	902	Diode	ERA15-02VH
D	911	Diode	ERA15-02VH
D	912	Diode	HZS6L(B1)
D	921	Diode	HZS7L(C3)
D	922	Diode	1SS133
D	923	Diode	HZS7L(A1)
D	931	Diode	ERA15-02VH
D	932	Diode	ERA15-02VH
D	941	Diode	DAN212K
D	951	Diode	HZS9L(B3)
D	952	Diode	HZS9L(A2)
D	953	Diode	1SS133
D	971	Diode	HZS9L(B1)
L	101	Inductor	LAU3R3K
L	501	Ferri-Inductor	LAU2R2K
L	502	Ferri-Inductor	LAU220K
L	601	Ferri-Inductor	LAU2R2K
L	602	Inductor	LAU100K
L	661	Ferri-Inductor	LAU2R2K
L	701	Inductor	LAU100K
L	751	Inductor	LAU100K
L	801	Ferri-Inductor	LAU2R2K
L	802	Transformer	MTX9005
L	901	Choke Coil 600H	CTH1171
X	501	7.2MHz	CSS1334
X	601	Ceramic Resonator 6.29MHz	CSS1310
X	661	Resonator 8.380MHz	CSS1354
X	701	Crystal Resonator 4.330MHz	CSS1338
S	941	Switch	CSG1059
		FM/AM Tuner Unit	CWE1472
		Detach Alarm Unit	CWM5291
BZ	601	Buzzer	CPV1011

RESISTORS

R	101	RS1/10S620J
R	102	RS1/10S101J
R	103	RS1/10S101J
R	104	RS1/10S222J
R	105	RS1/10S122J
R	106	RS1/10S122J
R	107	RS1/10S181J
R	108	RS1/10S181J
R	109	RS1/10S153J
R	110	RS1/10S153J
R	111	RS1/10S222J
R	112	RS1/10S222J
R	113	RS1/10S102J
R	114	RS1/10S102J
R	115	RS1/10S473J
R	116	RS1/10S473J
R	117	RS1/10S332J
R	118	RS1/10S682J
R	119	RS1/10S103J
R	133	RS1/10S162J

DEH-P85DHR,P75DH

====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.
R 134	RS1/10S162J	R 630	RS1/10S222J
R 151	RS1/10S272J	R 631	RS1/10S473J
R 152	RS1/10S272J	R 633	RS1/10S473J
R 153	RS1/10S151J	R 635	RS1/10S473J
R 154	RS1/10S151J	R 637	RS1/10S393J
R 201	RS1/10S103J	R 651	RS1/10S681J
R 202	RS1/10S331J	R 652	RS1/10S102J
R 204	RS1/10S103J	R 653	RS1/10S102J
R 205	RS1/10S103J	R 654	RS1/10S102J
R 251	RS1/10S821J	R 662	RS1/10S473J
R 252	RS1/10S821J	R 663	RS1/10S222J
R 253	RS1/10S471J	R 668	RS1/10S103J
R 254	RS1/10S471J	R 669	RS1/10S203J
R 255	RS1/10S223J	R 670	RS1/10S222J
R 256	RS1/10S223J	R 671	RS1/10S473J
R 257	RS1/10S223J	R 672	RS1/10S222J
R 258	RS1/10S223J	R 673	RS1/10S473J
R 301	RS1/10S471J	R 674	RS1/10S473J
R 302	RS1/10S471J	R 701	RS1/10S681J
R 303	RS1/10S104J	R 702	RS1/10S681J
R 304	RS1/10S104J	R 703	RS1/10S0R0J
R 501	RS1/10S102J	R 704	RS1/10S105J
R 502	RS1/10S102J	R 705	RS1/10S681J
R 503	RS1/10S102J	R 706	RS1/10S0R0J
R 506	RS1/10S103J	R 710	RS1/10S473J
R 508	RS1/10S472J	R 711	RA3C681J
R 509	RS1/10S152J	R 713	RS1/10S473J
R 510	RS1/10S102J	R 714	RA4C473J
R 511	RS1/10S472J	R 751	RS1/10S473J
R 512	RS1/10S103J	R 752	RS1/10S473J
R 513	RS1/10S102J	R 753	RS1/10S473J
R 514	RS1/10S0R0J	R 802	RS1/8S222J
R 515	RS1/10S103J	R 804	RS1/8S472J
R 516	RS1/10S222J	R 806	RS1/8S472J
R 517	RS1/10S473J	R 808	RS1/10S472J
R 518	RS1/10S473J	R 809	RS1/10S472J
R 519	RS1/10S473J	R 810	RS2PMF100J
R 520	RS1/10S224J	R 811	RD1/4PU471J
R 521	RS1/10S473J	R 812	RS1/10S103J
R 522	RS1/10S473J	R 813	RS1/10S224J
R 523	RS1/10S472J	R 814	RS1/10S222J
R 524	RS1/10S472J	R 815	RD1/4PU102J
R 525	RS1/10S222J	R 816	RS1/10S391J
R 526	RS1/10S223J	R 817	RS1/10S752J
R 601	RS1/10S473J	R 818	RS1/10S104J
R 602	RS1/10S473J	R 819	RS2P300JL
R 603	RS1/10S473J	R 851	RS1/8S331J
R 604	RS1/10S473J	R 865	RS1/10S103J
R 605	RS1/10S473J	R 866	RS1/10S102J
R 606	RS1/10S473J	R 867	RS1/10S473J
R 607	RS1/10S473J	R 868	RS1/10S473J
R 608	RS1/10S221J	R 869	RS1/10S473J
R 609	RS1/10S682J	R 911	RS1/10S332J
R 610	RA4C221J	R 912	RS1/10S101J
R 611	RS1/10S682J	R 921	RS1/10S103J
R 613	RS1/10S682J	R 922	RS1/10S473J
R 615	RS1/10S682J	R 923	RS1/10S103J
R 617	RA4C681J	R 924	RS1/10S103J
R 623	RS1/10S473J	R 925	RS1/10S473J
R 624	RS1/10S102J	R 926	RS1/10S472J
R 625	RS1/10S202J	R 931	RS1/10S103J
R 626	RS1/10S473J	R 941	RS1/10S102J
R 627	RS1/10S473J	R 942	RS1/10S822J
R 628	RS1/10S473J	R 943	RS1/8S471J
R 629	RS1/10S473J	R 944	RS1/10S473J

====Circuit Symbol & No. Part Name=====	Part No.	====Circuit Symbol & No. Part Name=====	Part No.
R 951	RD1/4PU221J	C 252	CEJA4R7M35
R 952	RD1/4PU301J	C 253	CEJA4R7M35
R 953	RS1/10S1R0J	C 254	CEJA4R7M35
R 954	RD1/4PU331J	C 255	CKSQYB221K50
R 955	RD1/4PU331J	C 256	CKSQYB221K50
R 956	RS1/8S472J	C 257	CKSQYB221K50
R 957	RD1/4PU102J	C 258	CKSQYB221K50
R 958	RS1/10S472J	C 301	CEJA3R3M50
R 959	RD1/4PU102J	C 302	CEJA3R3M50
R 960	RS1/10S472J	C 501	CKSQYB223K25
R 961	RS1/10S103J	C 502	CKSQYB223K25
R 962	RS1/10S473J	C 503	CKSQYB103K50
R 963	RS1/10S473J	C 504	CKSQYB103K50
R 971	RD1/4PU221J	C 505	CKSQYB103K50
R 972	RS1/10S221J	C 506	CKSQYB473K25
R 973	RS1/10S472J	C 507	CKSQYB102K50
R 974	RS1/8S122J	C 509	CKLSR473K16
CAPACITORS		C 510	CKSQYB103K50
C 103	CEJA1R0M50	C 512	CEJA100M16
C 104	CEJA1R0M50	C 513	CKSQYB103K50
C 105	CEJA1R0M50	C 514	CCSQCH101J50
C 106	CEJA1R0M50	C 515	CCSQCH101J50
C 107	CEJA100M16	C 516	CKSQYB103K50
		C 518	CCH1250
		C 519	CKSQYB103K50
C 108	CKSQYB473K25		
C 109	CKSQYB104K16	C 520	CCSQCH150J50
C 131	CEJA4R7M35	C 521	CCSQCH150J50
C 132	CEJA4R7M35	C 522	CKSQYB223K25
C 133	CKSQYB473K25	C 603	CEJA100M16
		C 604	CKSQYB103K50
C 134	CKSQYB473K25		
C 135	CEJA4R7M35	C 605	CCSQCH101J50
C 136	CEJA4R7M35	C 606	CCSQCH101J50
C 137	CEJA4R7M35	C 607	CASA1R0M16
C 138	CEJA4R7M35	C 609	CCSQCH101J50
		C 661	CCSQCH101J50
C 151	CKSQYB104K16		
C 152	CEAS470M10	C 662	CEJA4R7M35
C 153	CEJANP100M10	C 663	CKSQYB104K16
C 154	CEJANP100M10	C 664	CKSQYB473K25
C 155	CKSQYB822K50	C 705	CKSYB473K16
		C 706	CKSQYB473K25
C 156	CKSQYB822K50		
C 157	CEJA1R0M50	C 708	CKSQYB104K16
C 158	CEJA1R0M50	C 751	CEJA100M16
C 159	CKSQYB183K25	C 752	CKSQYB103K50
C 160	CKSQYB183K25	C 753	CKSYB103K50
		C 801	CKSYB104K16
C 161	CKSQYB102K50		
C 162	CKSQYB102K50	C 802	CCSQCH101J50
C 163	CEJANP2R2M35	C 803	CEHAR100M16
C 164	CEJANP2R2M35	C 804	CKSQYB103K50
C 165	CKSQYB333K25	C 805	CEHAR100M16
		C 806	CKSQYB103K50
C 166	CKSQYB333K25		
C 167	CEJA220M6R3	C 807	CKSQYB333K25
C 168	CEJA2R2M50	C 808	CKSQYB333K25
C 169	CKSQYB104K16	C 858	CKSQYB473K25
C 201	CKSYB224K16	C 901	CKSQYB103K50
		C 911	CKSQYB103K50
C 202	CKSYB224K16		
C 203	CKSYB224K16	C 912	CCL1037
C 204	CKSYB224K16	C 913	CKSQYB472K50
C 205	CEHAR010M50	C 914	CEHAQ102M16
C 206	CCH1163	C 915	CEAS470M10
		C 921	CKSYB105K16
C 207	CKSQYB103K50		
C 208	CEHAR100M16	C 922	CKSYB102K50
C 209	CEHAR010M50	C 931	CKSQYB473K25
C 210	CEHAR330M10	C 941	CEJA2R2M50
C 251	CEJA4R7M35	C 951	CKSQYB103K50
		C 952	CEHAQ101M16

DEH-P85DHR,P75DH

====Circuit Symbol & No. Part	Name=====	Part No.
C 953		CKSQYB103K50
C 954	330 μ F/10V	CCH1181
C 971		CKSQYB473K25
C 972		CKSQYB102K50
C 973		CEAS101M10

C Unit Number : CWX2069(DEH-P85DHR)
Unit Number : CWX2070(DEH-P75DH)
Unit Name : Keyboard Unit

MISCELLANEOUS

IC 1901	IC	PD6197A
IC 1902		RS-140
D 1901	Diode	DA204K
D 1902	Diode	DA204K
D 1903	LED	CL220PGC
D 1904	LED	CL220PGC
D 1905	LED	CL220PGC
D 1906	LED	CL170PGCD
D 1907	LED	CL170PGCD
D 1908	LED	CL170PGCD
L 1901	Inductor	LCTB1R0K2125
X 1901		CSS1084
S 1901		CSG1085
S 1902		CSG1084
S 1903		CSG1085
S 1904		CSG1085
S 1905		CSG1085
S 1906		CSG1085
S 1907		CSG1085
S 1908		CSG1085
S 1909		CSG1061
S 1910		CSG1061
S 1911		CSG1084
S 1912		CSG1084
S 1913		CSG1084
S 1914		CSG1084
S 1915		CSG1084
S 1916		CSG1084
S 1917		CSG1085
S 1918		CSG1084
S 1919		CSG1084
S 1920		CSG1084
S 1921		CSG1086
	LCD(DEH-P85DHR)	CAW1389
	LCD(DEH-P75DH)	CAW1390
	EL	CEL1488

RESISTORS

R 1901		RS1/8S222J
R 1902		RS1/8S222J
R 1903		RS1/8S562J
R 1904		RS1/8S470J
R 1905		RS1/8S2R2J
R 1906		RS1/8S121J
R 1907		RS1/8S121J
R 1908		RS1/8S121J
R 1909		RS1/8S121J
R 1910		RS1/8S121J
R 1911		RS1/8S121J
R 1912		RS1/8S121J
R 1913		RS1/8S121J
R 1914		RS1/8S121J
R 1915		RS1/8S121J

====Circuit Symbol & No. Part	Name=====	Part No.
R 1916		RS1/8S0R0J
R 1917		RS1/8S0R0J

CAPACITORS

C 1901		CKSQYB103K50
C 1902		CEV470M6R3
C 1903		CKSQYB104K16
C 1904		CKSQYB104K16
C 1905		CKSYB104K25
C 1906		CKSQYB104K16

D Unit Number :
Unit Name : Detector PCB

Q 1	Photo-transistor	CPT-230S-X
Q 2	Photo-transistor	CPT-230S-X

Miscellaneous Parts List

M 1	Pickup Unit(SERVICE)	CXX1230
M 2	Motor Unit(Spindle)	CXA8912
M 3	CRG Motor Unit(Carriage)	CXA8986
	Load Motor Unit>Loading)	CXA8702

6. ADJUSTMENT

6.1 TUNER ADJUSTMENT

● Connection Diagram

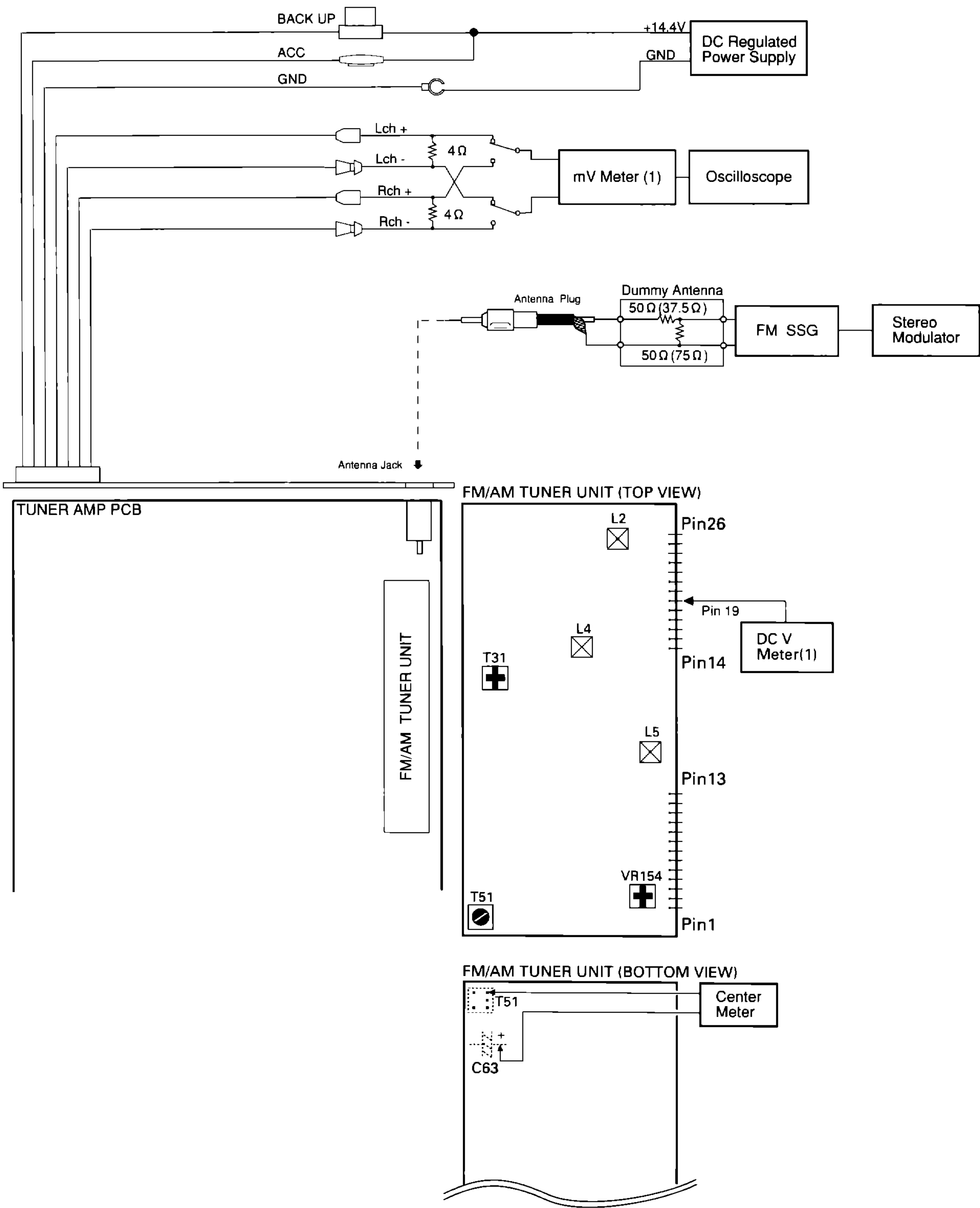


Fig. 25

FM ADJUSTMENT

Modulation M:MONO MOD., 400Hz 30%(22.5kHz Dev.) or 400Hz 100%(75kHz Dev.)

S:STEREO MOD., 1kHz, L or R=30%(20.25kHz+7.5kHz Dev.)

NOTE:Before proceeding to further adjustments after switching power ON, let the tuner run for ten minutes to allow the circuits to stabilize.

	No.	FM SSG		Displayed Frequency(MHz)	Adjustment Point	Adjustment Method (Switch Position)
		Frequency(MHz)	Level(dBf)			
TUN Volt	1			107.9	L5	DC V Meter(1) : 6V
IF	2	98.1 M	60	98.1	T51	Center Meter : 0
ANT Coil	3	98.1 M	5	98.1	L2	mV Meter(1) : Maximum
RF Coil	4	98.1 M	5	98.1	L4	mV Meter(1) : Maximum
IFT	5	98.1 M	5	98.1	T31	mV Meter(1) : Maximum (STEREO MODE)
ARC	6	98.1 S	40	98.1	VR154	mV Meter(1) : Separation 5dB (STEREO MODE)

6.2 CHECKING THE KEYBOARD UNIT

When checking the Keyboard unit and Tuner Amp PCB, set the unit as shown in the figure. Secure the Keyboard unit by using adhesive tape to prevent it from becoming unstable during the check.

Even without the CD mechanism module, the minimum necessary items, such as the EL check, can be checked.

In the Keyboard unit and Tuner Amp PCB, there are EL high-voltage sections with the description of "HIGH VOLTAGE". Therefore, special care should be taken when handling them to prevent electrical shock.

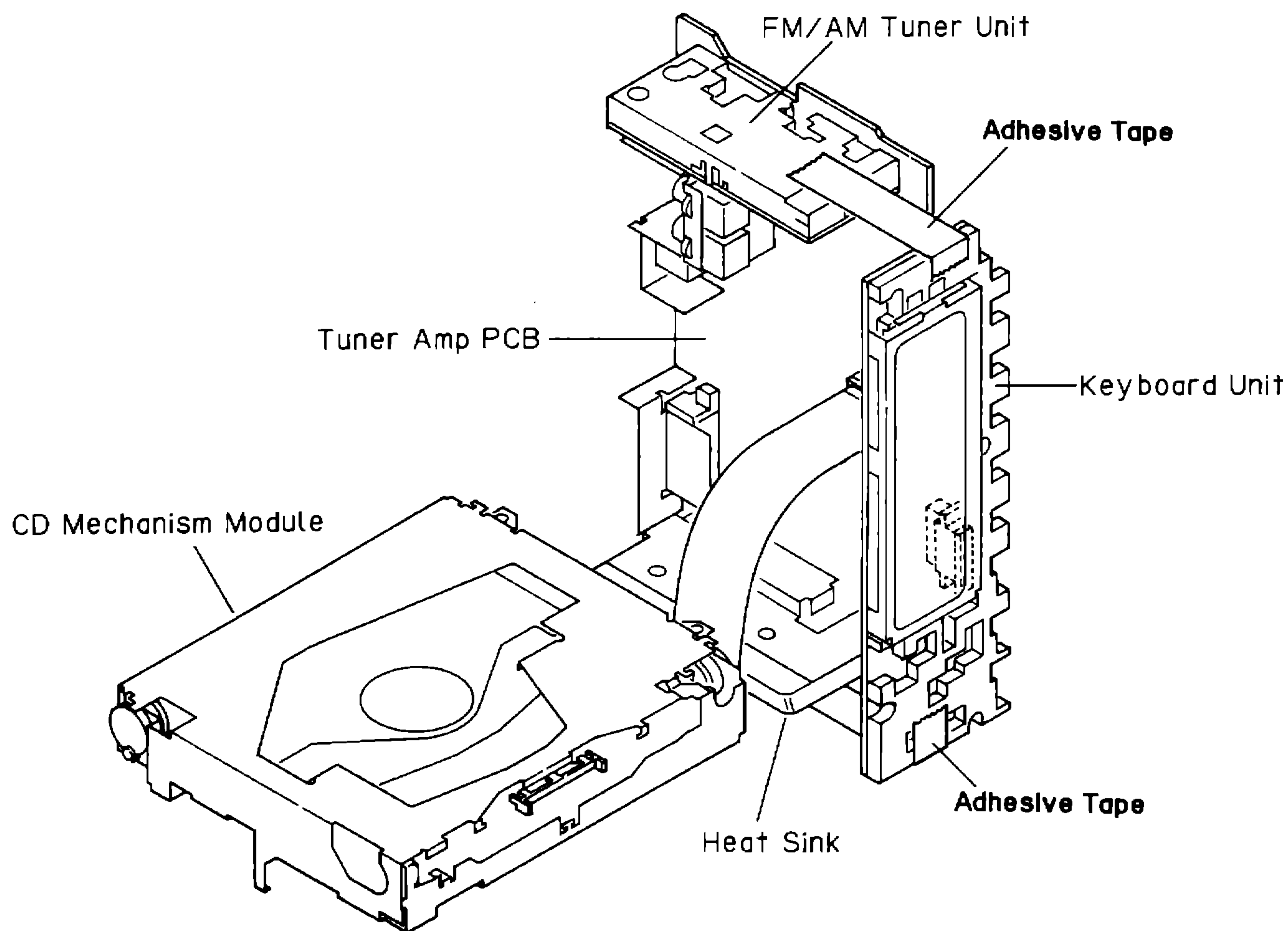


Fig. 27

6.3 CD ADJUSTMENT

1)Precautions

- This unit uses a single power supply (+5V) for the regulator. The signal reference potential, therefore, is connected to REFO(approx. 2.5V) instead of GND.
If REFO and GND are connected to each other by mistake during adjustments, not only will it be impossible to measure the potential correctly, but the servo will malfunction and a severe shock will be applied to the pick-up. To avoid this, take special note of the following.
Do not connect the negative probe of the measuring equipment to REFO and GND together. It is especially important not to connect the channel 1 negative probe of the oscilloscope to REFO with the channel 2 negative probe connected to GND.
Since the frame of the measuring instrument is usually at the same potential as the negative probe, change the frame of the measuring instrument to floating status.
If by accident REFO comes in contact with GND, immediately switch the regulator or power OFF.
- Always make sure the regulator is OFF when connecting and disconnecting the various filters and wiring required for measurements.
- Before proceeding to further adjustments and measurements after switching regulator ON, let the player run for about one minute to allow the circuits to stabilize.
- Since the protective systems in the unit's software are rendered inoperative in test mode, be very careful to avoid mechanical and /or electrical shocks to the system when making adjustment.
- Test mode starting procedure
Switch ACC, back-up ON while pressing the **4** and **6** keys together.
- Test mode cancellation
Switch ACC, back-up OFF.
- Disc detection during loading and eject operations is performed by means of a photo transistor in this unit. Consequently, if the inside of the unit is exposed to a strong light source when the outer casing is removed for repairs or adjustment, the following malfunctions may occur.
*During PLAY, even if the eject button is pressed, the disc will not be ejected and the unit will remain in the PLAY mode.
*The unit will not load a disc.
When the unit malfunctions this way, either re-position the light source, move the unit or cover the photo transistor.
- When loading and unloading discs during adjustment procedures, always wait for the disc to be properly clamped or ejected before pressing another key. Otherwise, there is a risk of the actuator being destroyed.
- Turn power off when pressing the button $\triangleright$ or the button $\triangleleft$ key for focus search in the test mode. (Or else lens may stick and the actuator may be damaged.)
- SINGLE/4TRK/10TRK/32TRK will continue to operate even after the key is released. Tracking is closed the moment C-MOVE is released.
- JUMP MODE resets to SINGLE as soon as power is switched OFF.

6.4 CHECKING THE GRATING

● Checking the Grating After Changing the Pickup Unit

· **Note :**

Unlike previous CD mechanism modules the grating angle of the PU unit cannot be adjusted after the PU unit is changed. The PU unit in the CD mechanism module is adjusted on the production line to match the CD mechanism module and is thus the best adjusted PU unit for the CD mechanism module. Changing the PU unit is thus best considered as a last resort. However, if the PU unit must be changed, the grating should be checked using the procedure below.

· **Purpose :**

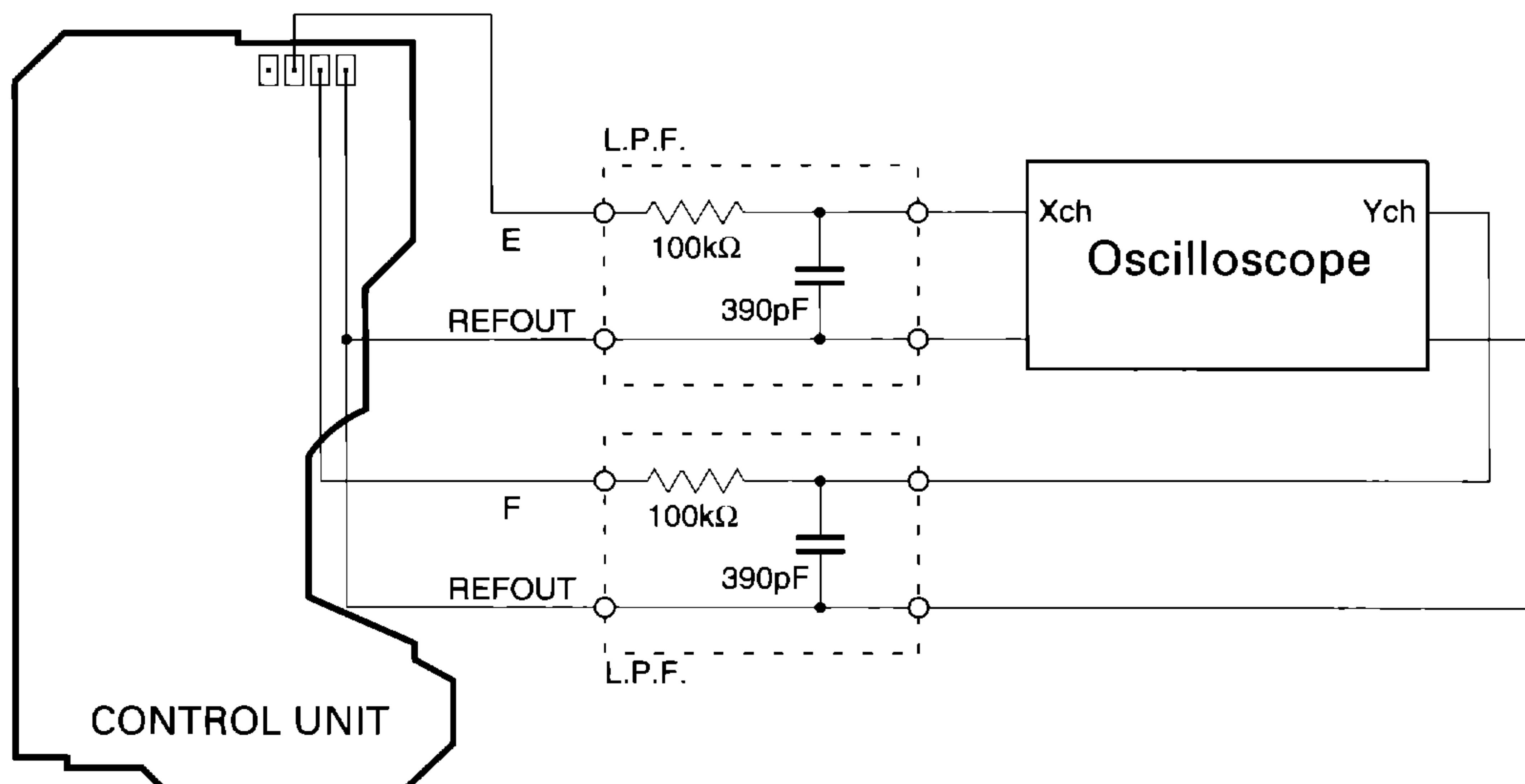
To check that the grating is within an acceptable range.

· **Symptoms of Mal-adjustment :**

If the grating is off by a large amount symptoms such as being unable to close tracking, being unable to perform track search operations, or track searching taking a long time, may appear.

· **Method :**

- | | |
|-----------------------|----------------------------|
| · Measuring Equipment | · Oscilloscope, Two L.P.F. |
| · Measuring Points | · E, F, REFOUT |
| · Disc | · ABEX TCD-784 |
| · Mode | · TEST MODE |



· **Checking Procedure**

1. In test mode, load the disc and switch the 5V regulator on.
2. Using the **TR+** and **TR-** buttons, move the PU unit to the innermost track.
3. Press key **9** to close focus, the display should read "91". Press key **8** to implement the tracking balance adjustment the display should now read "81". Press key **9** 4 times. The display will change, returning to "81" on the fourth press.
4. As shown in the diagram above, monitor the LPF outputs using the oscilloscope and check that the phase difference is within 75° . Refer to the photographs supplied to determine the phase angle.
5. If the phase difference is determined to be greater than 75° try changing the PU unit to see if there is any improvement. If, after trying this a number of times, the grating angle does not become less than 75° then the mechanism should be judged to be at fault.

· **Note**

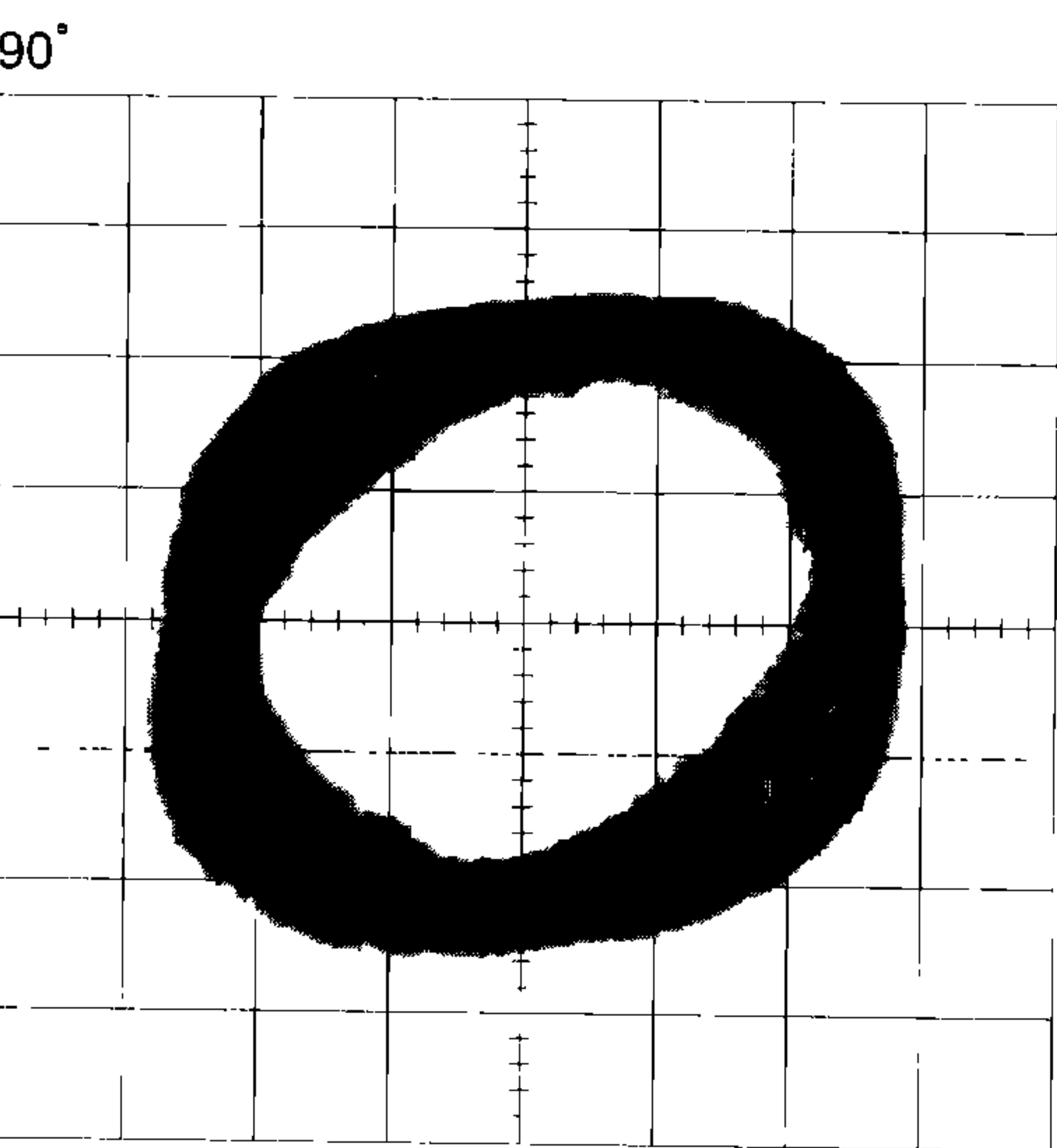
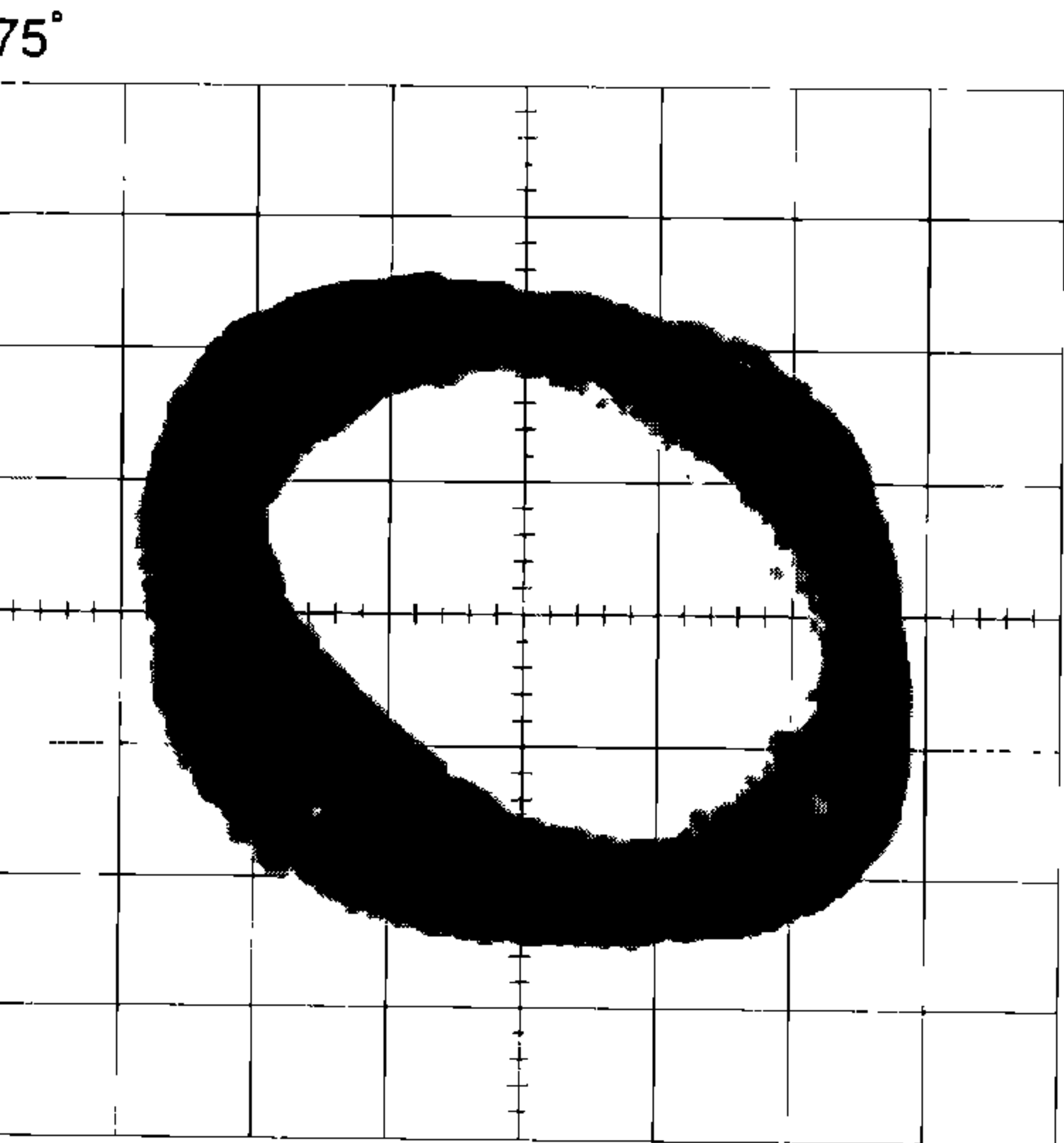
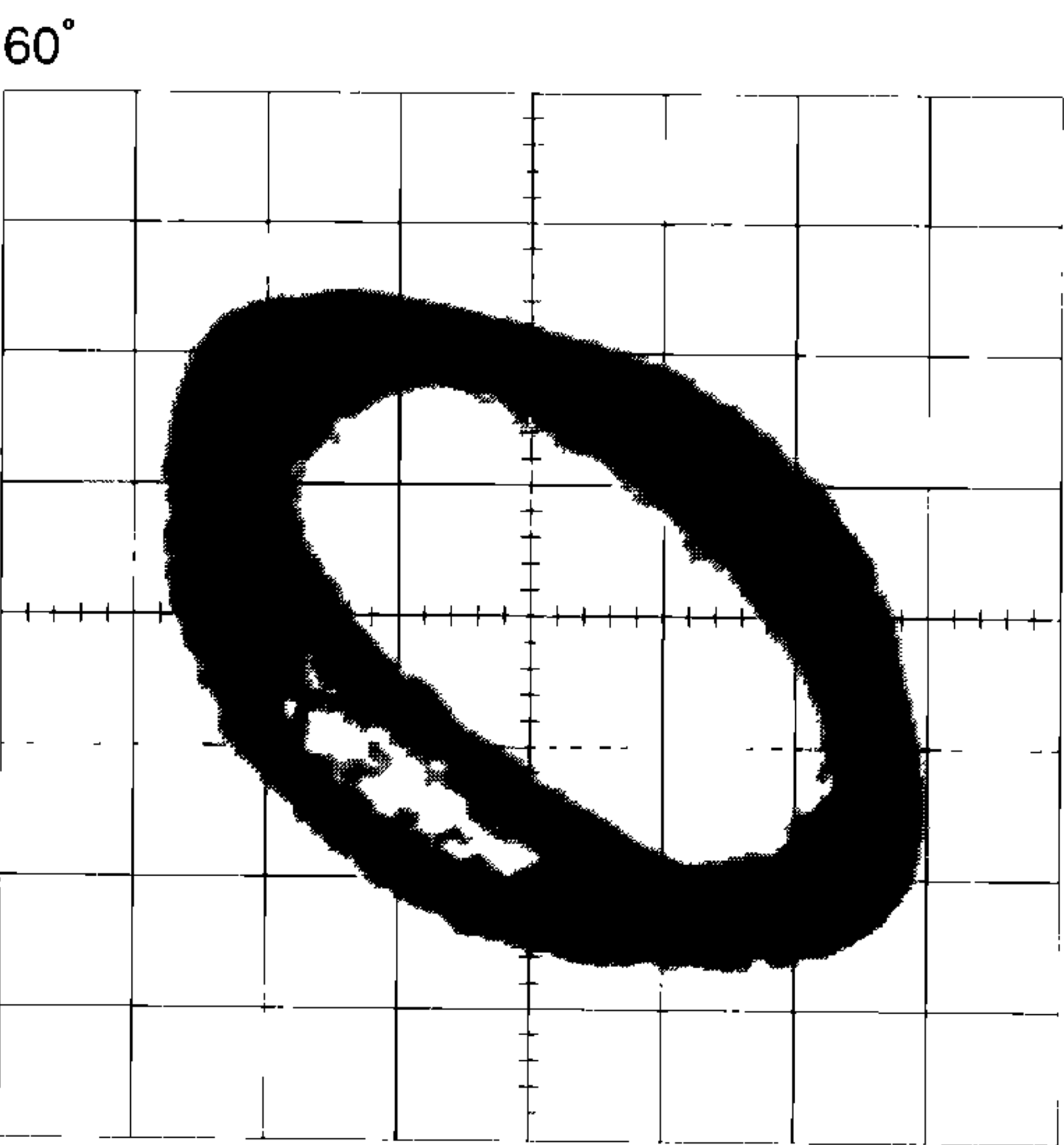
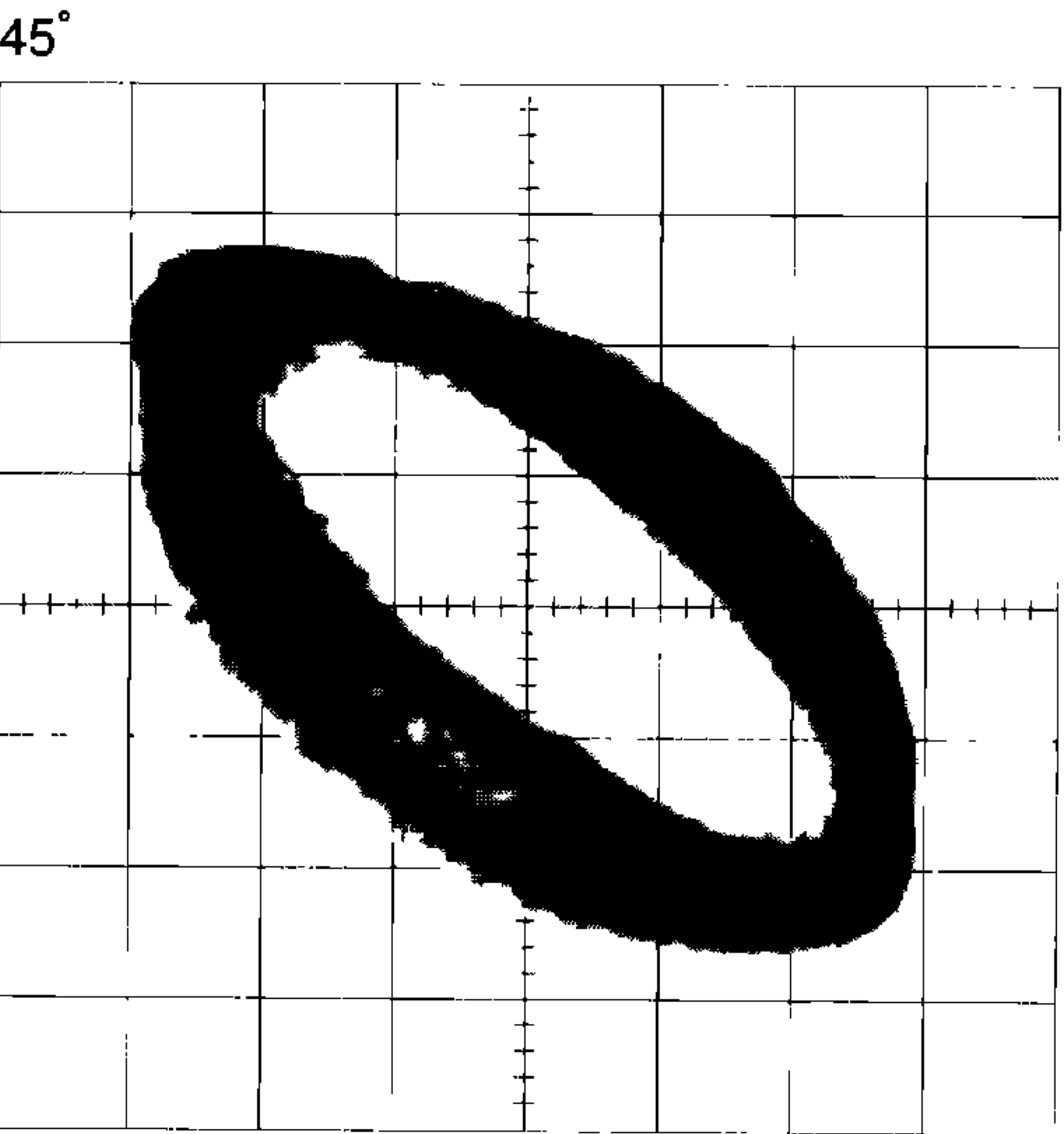
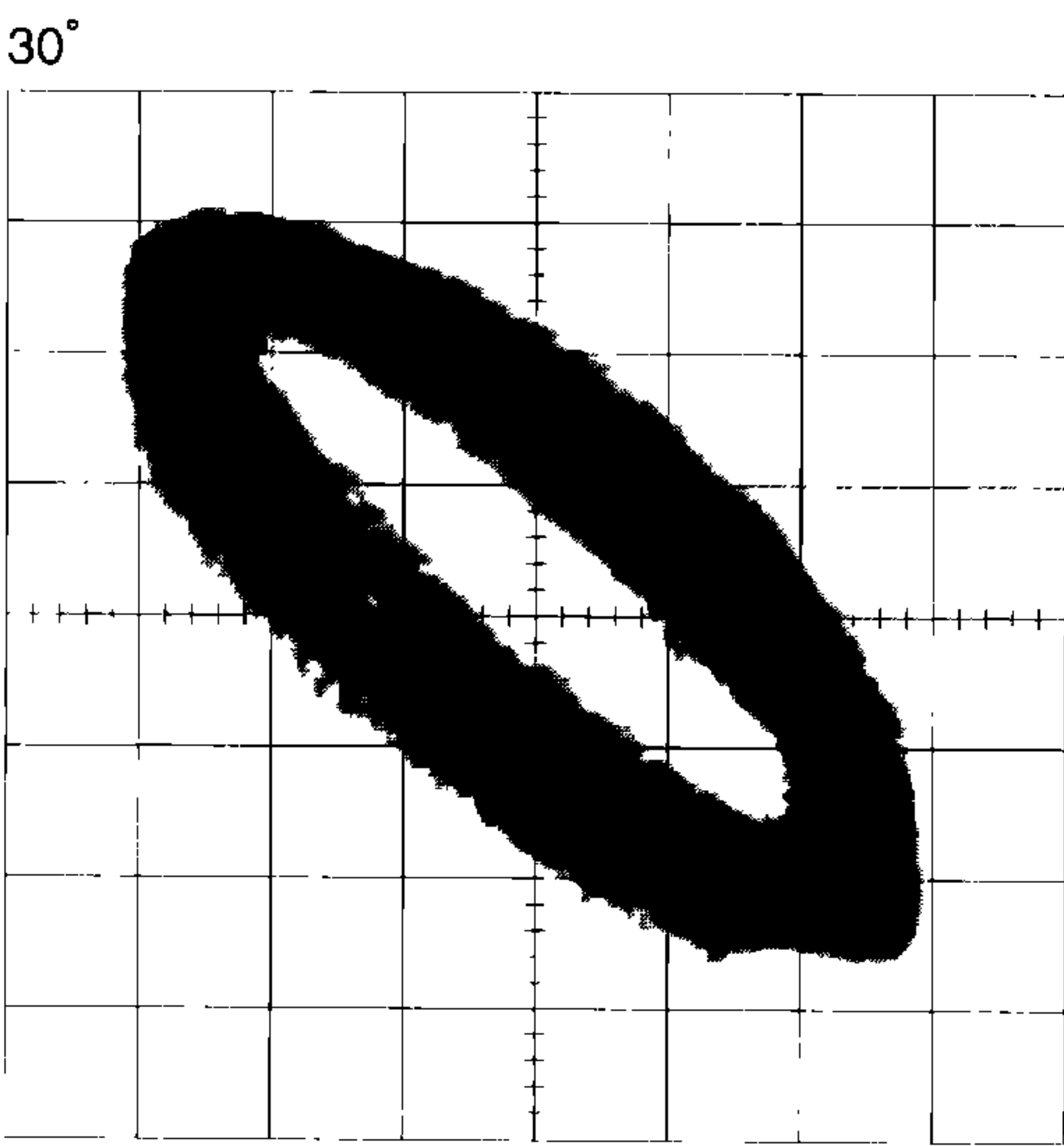
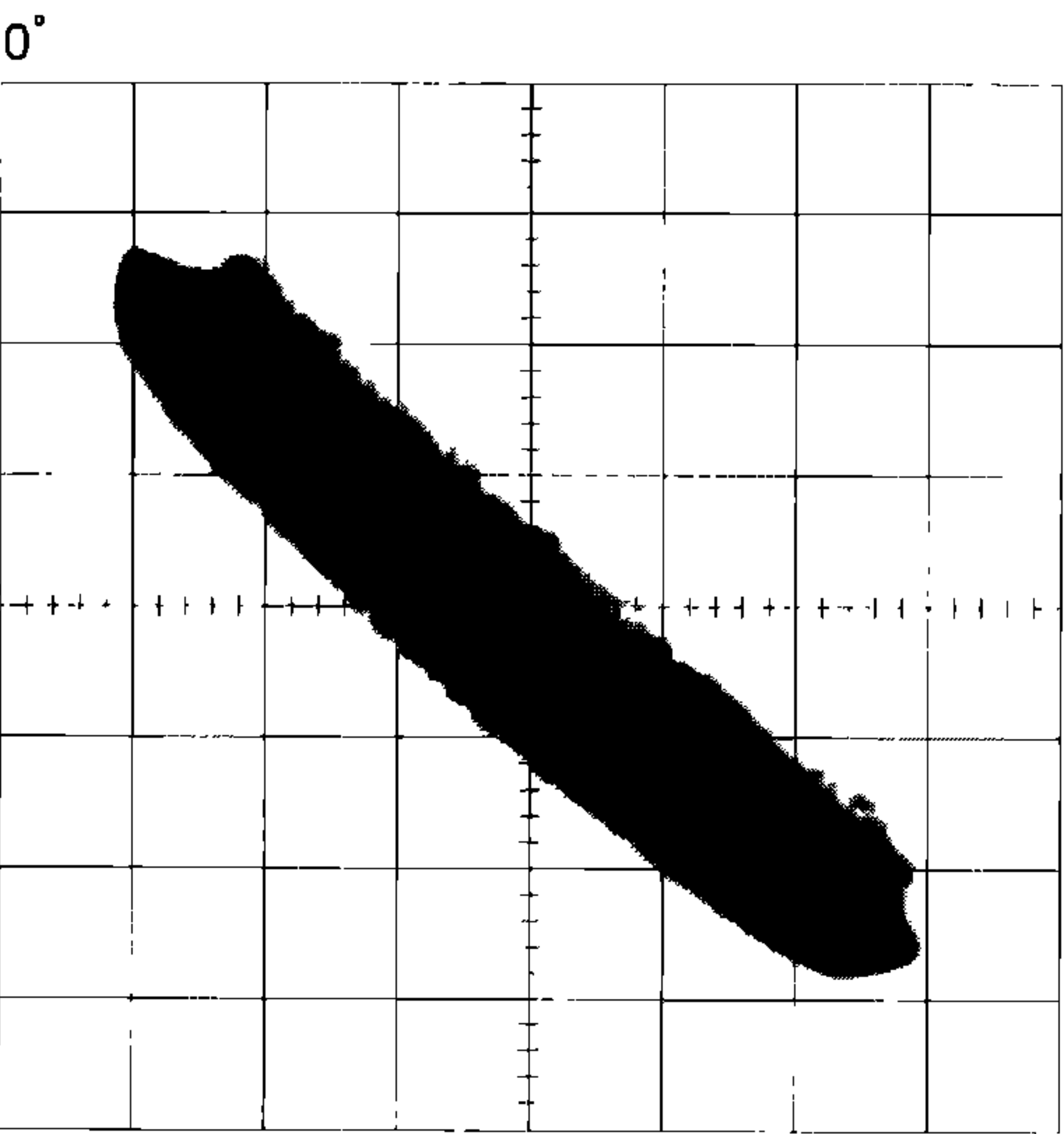
Because of eccentricity in the disc and a slight misalignment of the clamping center the grating waveform may be seen to "wobble" (the phase difference changes as the disc rotates). The angle specified above indicates the average angle.

· **Hint**

Reloading the disc changes the clamp position and may decrease the "wobble".

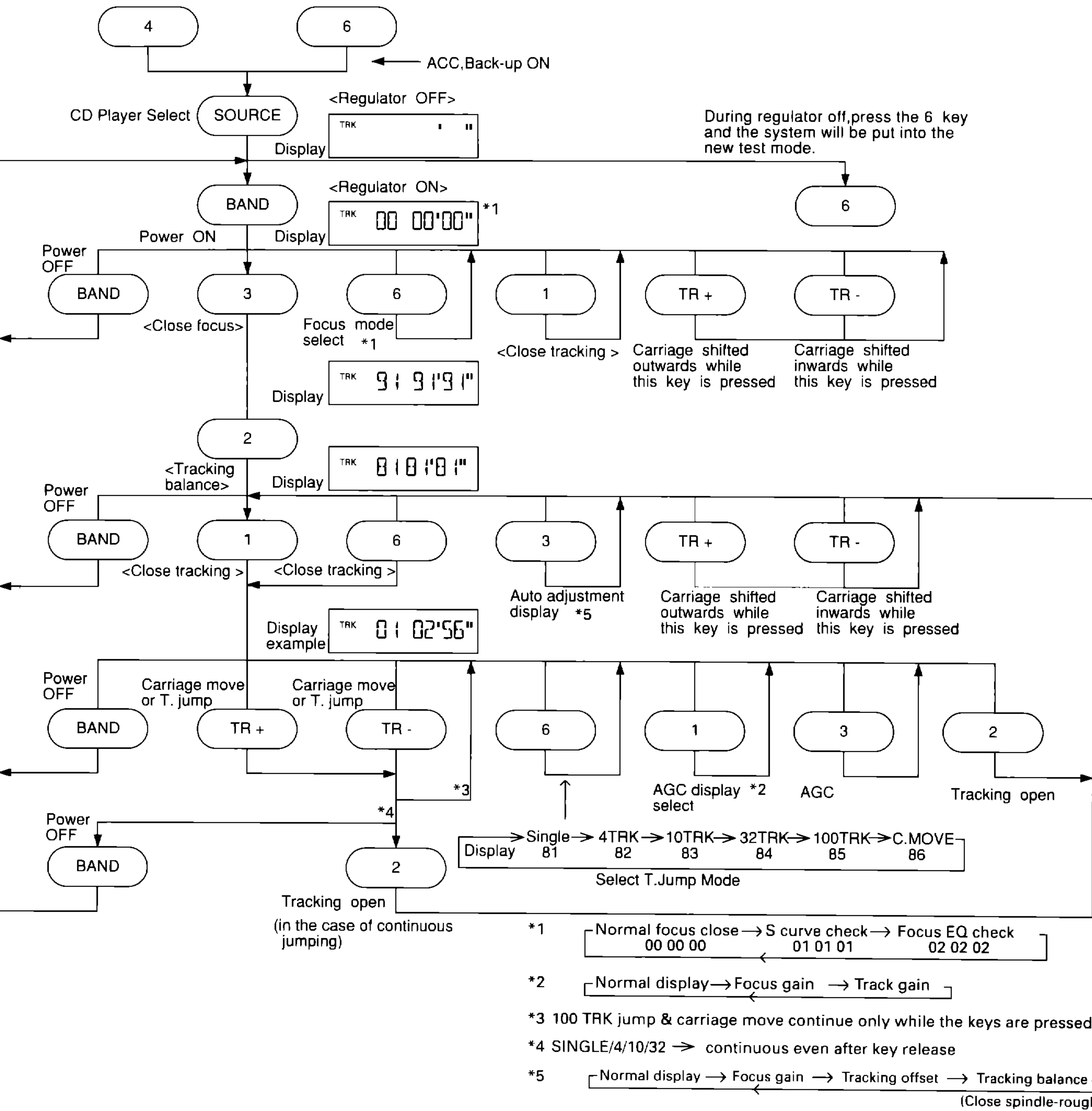
Grating waveform

Ech → Xch 20mV/div, AC
Fch → Ych 20mV/div, AC



6.5 TEST MODE

● Flow Chart



7. GENERAL INFORMATION

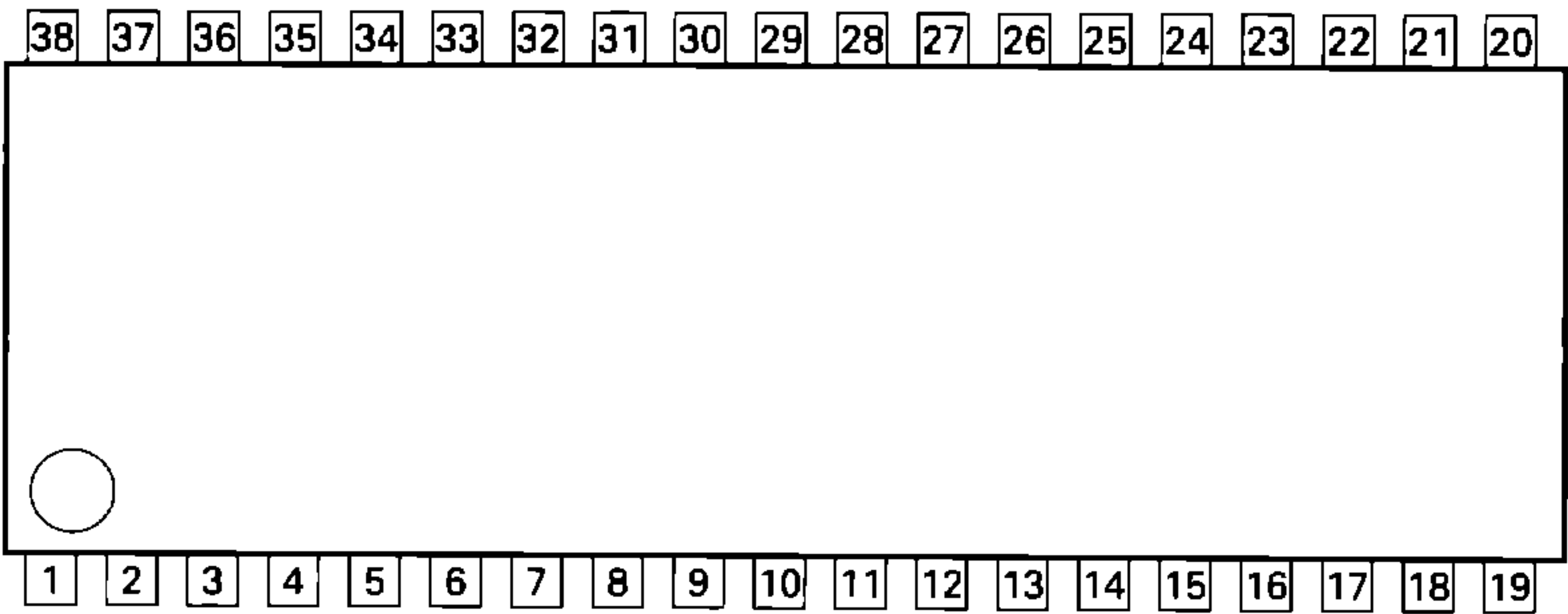
7.1 PARTS

7.1.1 IC

● Pin Functions (UPC2572GS)

Pin No.	Pin Name	I/O	Function and Operation
1	EFM-IN	I	EFM comparator input
2	AGC-OUT	O	AGC amplifier output
3	C. AGC		Connects AGC peak detection condenser
4	RF-IN	I	RF signal DC component cut input
5	RF-OUT	O	RF amplifier output
6	RF-	I	RF amplifier inverted input
7	C1, 3T		Connects RF3T component detection condenser
8	C2, 3T		Connects RF3T component detection condenser
9	Vcc		Power supply
10	A	I	A signal input
11	C	I	C signal input
12	B	I	B signal input
13	D	I	D signal input
14	F	I	F signal input
15	E	I	E signal input
16	PD	I	APC amplifier input
17	LD	O	APC amplifier output
18	LDON	I	Laser diode ON/OFF input
19	VREF-OUT	O	Reference voltage output
20	VREF-IN	I	Reference voltage input
21	DET-OUT	O	Vibration detection circuit output
22	DET-IN	I	Vibration detection circuit input
23	TE-OUT2	O	Tracking error amplifier output (fourfold gain)
24	TE-OUT1	O	Tracking error amplifier output (singlefold gain)
25	TE-	I	Tracking error amplifier inverted input
26	GND		GND
27	FE-	I	Focus error amplifier inverted input
28	FE-OUT	O	Focus error amplifier output
29	C.FE	I	Focus error signal DC component cut input
30	3T-OUT	O	RF3T component output
31	MIRR	O	MIRR signal output
32	RFOK	O	RFOK signal output
33	DEFECT	O	DEFECT signal output
34	C. DEF		Connects DEFECT signal detection condenser
35	EFM-OUT	O	EFM comparator output
36	ASY	I	EFM comparator level input
37	TE-BAL	I	Tracking balance control
38	FE-BAL	I	Focus balance control

UPC2572GS

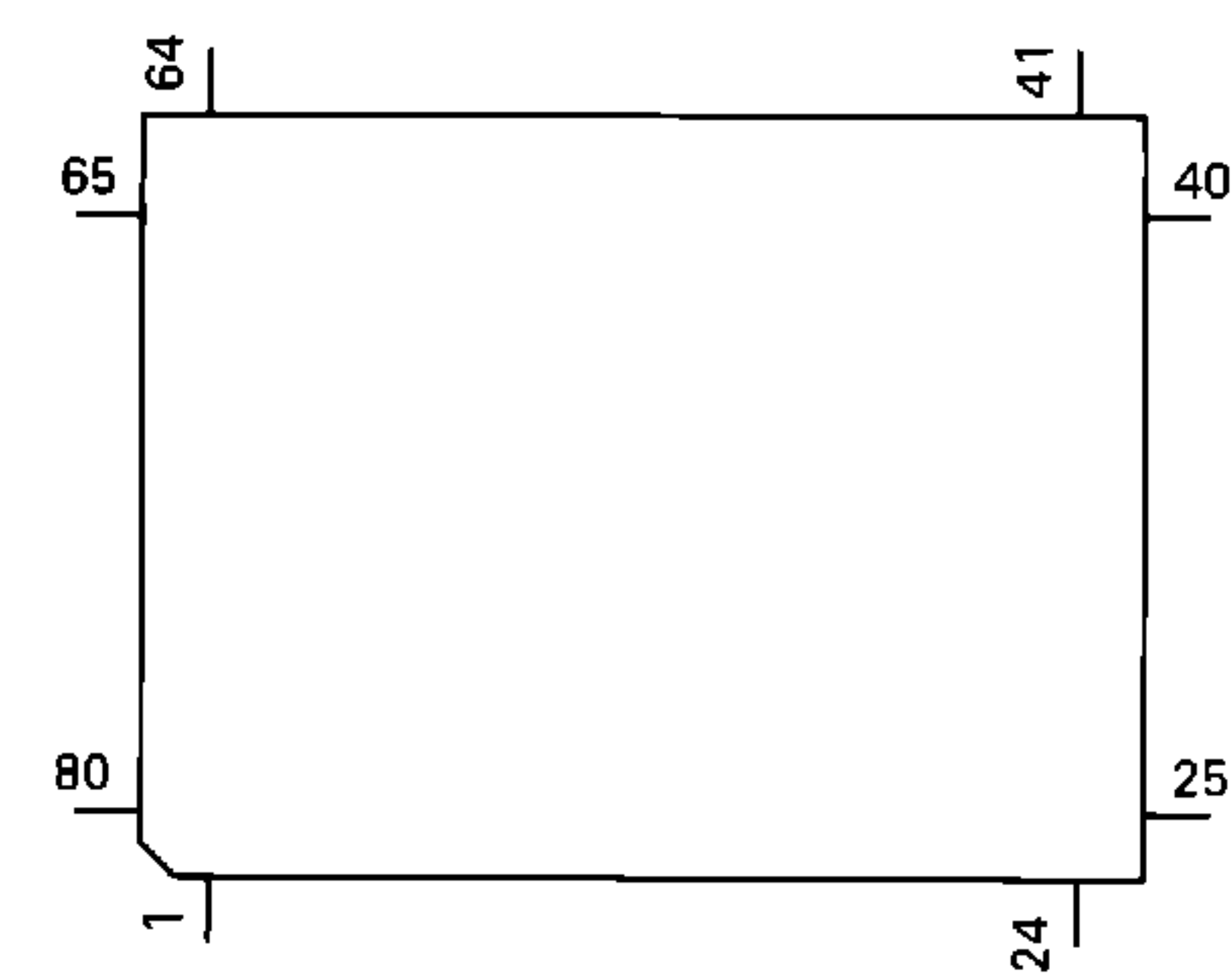


● Pin Functions (UPD63702GF)

Pin No.	Pin Name	I/O	Function and Operation
1	D.VDD		Supplies current of positive voltage to the logic circuits
2	RST	I	System reset input pin
3	AO	I	Microcomputer interface AO="L": STB active and set to address register AO="H": STB active and set to parameter
4	STB	I	Signal to latch serial data within the LSI
5	SCK	I	Clock input pin to input and output serial data
6	SO	O	Outputs serial data and status signal
7	SI	I	Serial data input pin
8	D.GND		Logic circuit GND
9	X.GND		Crystal oscillation circuit GND
10	XTAL	I	Crystal oscillator connection pin
11	XTAL	O	Crystal oscillator connection pin
12	X.VDD		Supplies current of positive voltage to the crystal oscillation circuit
13	DA.VDD		Supplies current of positive voltage to the D/A converter
14	R+	O	Right channel analog audio data output pin
15	R-	O	Right channel analog audio data output pin
16,17	DA.GND		D/A converter GND
18	L-	O	Left channel analog audio data output pin
19	L+	O	Left channel analog audio data output pin
20	DA.VDD		Supplies current of positive voltage to the D/A converter
21	D.VDD		Supplies current of positive voltage to logic circuit
22	FLAG	O	Flag output pin to indicate that audio data currently being output consists of noncorrectable data
23	WDCK	O	Pin to output double the frequency of LRCK
24	C16M	O	Pin to output the clock
25	EMPH	O	Output pin for the pre-emphasis data in the sub-Q code
26	DIN	I	Input pin for serial audio data
27	DOUT	O	Output pin for the serial audio data
28	SCKO	O	Output pin for the clock for the serial audio data
29	LRCK	O	Signals to distinguish the right and left channels of the audio data output from DOUT. Frequency is 44.1kHz at 50% duty at normal regeneration
30	TX	O	Output pin for the digital audio interface data
31	CTLV	I	Oscillation control pin for high-frequency clock generation VCO used for the digital PLL upon regeneration at fast speed of 2- or 4-fold
32	POUT	O	Output point for phase comparison
33	D.GND		GND for the logic circuit
34	VCO	I	Input pin for the inverter
35	VCO	O	Output pin for the inverter
36	D.VDD		Supplies current of positive voltage to the logic circuit
37	PLCK	O	Pin for monitoring the bit clock
38	LOCK	O	Indicates "H" when the synchronized pattern detection signal matches the frame counter output at the EFM recovery modulation, and "L" when they don't match
39	WFCK	O	Minute-cycle signal for the bit clock, the signal indicates the cycle of 1 frame (approx. 7.35kHz)
40	RFCK	O	Minute-cycle signal for the clock, the signal indicates cycle of 1 frame (approx. 7.35kHz)
41	D.GND		GND for the logic circuit
42,43	TEST0,1	I	Test pins
44,45	TM2, TM4	I	Pins for controlling regeneration at fast speed of 2- or 4-fold
46-49	T4-T7	I	Test pins
50,51	C1D1, C1D2	O	Output pin for indicating the C1 error correction results
52-54	C2D1-C2D3	O	Output pin for indicating the C2 error correction results
55	D.VDD		Supplies current of positive voltage to the logic circuit
56	SFSY	O	Outputs 1 word of the subcode. Generally, 1 cycle is approx 136 micro seconds
57	SBSY	O	The signal indicates the beginning of the subcode block. The SFSY signal is output at high level every 98 times
58	SBSO	O	Output pin for the subcode data

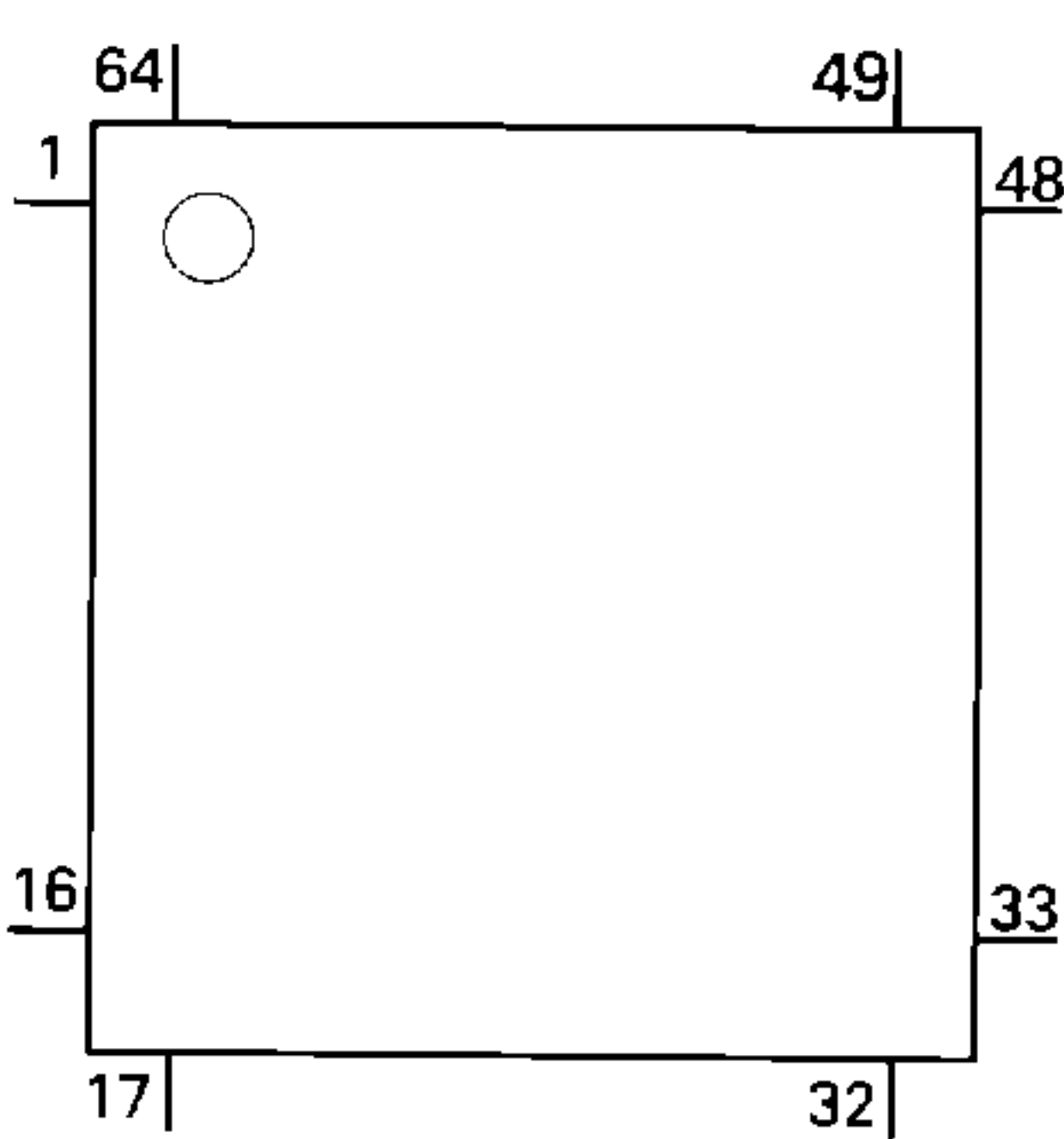
Pin No.	Pin Name	I/O	Function and Operation
59	SBCK	I	Input pin for the clock signal for read-out of the subcode data
60	A.GND		GND for the analog circuit
61	MD	O	Output pin for the spindle drive
62	SD	O	Output pin for the sled drive
63	TD	O	Output pin for the tracking drive
64	FD	O	Output pin for the focus drive
65	FBAL	O	Output pin for the focus balance control
66	TBAL	O	Output pin for the tracking balance control
67	A.VDD		Supplies current of positive voltage to the analog circuit
68	TBC	I	Switches coefficient banks for the tracking filter
69	EFM	I	Input pin for the EFM signal
70	HOLD	I	Input pin for the hold control signal
71	RFOK	I	Input pin for the RFOK signal
72	MIRR	I	Input pin for the MIRR signal
73	A.GND		GND for the analog circuit
74	HOME	I	Home position detector input
75	VR1	I	The signal input through these pins is digitized to 8-bit by the A/D converter, which by operation of the assigned register, can be read into the microcomputer
76	FE	I	Inputs a focus-error signal from the RF amplifier
77	TE	I	Inputs a tracking-error signal from the RF amplifier
78	TEC	I	Input pin for the tracking comparator
79	REFOUT	O	Output point for midpoint potential for the A/D converter for the LSI portion
80	A.VDD		Supplies current of accurate voltage to the analog circuit

*UPD63702GF



IC's marked by* are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

*PD4623B



● Pin Functions (PD4623B)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	NC			Not used
2	$\overline{\text{XRST}}$	O	C	CD LSI reset output
3,4	NC			Not used
5	DCE	O	C	Chip enable output
6	$\overline{\text{CRST}}$	O	C	IP-BUS reset output
7	HOME			Connect to VDD
8	$\overline{\text{CLAMP}}$	I		Disc clamp input
9	VSS			GND
10	NC			Not used
11	CDEJET	O	C	Load motor eject control output
12	CDLOAD	O	C	LOAD motor loading control output
13	CONT	O	C	Servo driver power supply control
14	NC			Not used
15	CDMUTE	O	C	CD mute control output
16	DEEM			Not used
17	$\overline{\text{ADENA}}$	O	C	A/D reference voltage control output
18-23	NC			Not used
24	VSS			GND
25	DSET			Not used
26	BMUTE			Not used
27-30	NC			Not used
31	$\overline{\text{BRXEN}}$	I/O	C	Reception enable input/output
32	$\overline{\text{BSRQ}}$	O	C	P-BUS serial pole request input
33	VDCONT	O	C	VD power control output
34	CD5VON	O	C	CD +5V power control output
35	$\overline{\text{RESET}}$	I		Reset input
36	TXARI	I		VDD
37	$\overline{\text{CSENS}}$	I		Flap close sense input
38	$\overline{\text{BRST}}$	I		P-BUS reset input
39	CMPARI	I		GND
40	VDD			Power supply
41	X2			Crystal oscillator connection pin
42	X1	I		Crystal oscillator connection pin
43	IC			Connect to GND
44	NC			Not used
45	$\overline{\text{TESTIN}}$	I		Test program start input
46	AVSS	I		A/D GND
47	TEMP	I		Temperature sense input
48	VDSENS	I		VD short detection input
49	EJTSNS			Disc EJECT position detect
50	DSCSNS	I		Disc detect
51	NC			Not used
52	FOK	I		FOK signal input
53	MIRR	I		Mirror detection input
54	LOCK	I		Spindle lock detector input
55	AVDD			Power supply
56	AVREF	I		A/D converter reference voltage
57	XSI	I		Serial data input
58	XSO	O	C	Serial data output
59	XSCK	O	C	Serial clock output
60	XSTB	O	C	CD LSI strobe output
61	XA0	O		Control signal distinguishing data from microcomputer
62	NC			Not used
63	BDATA	I/O	C	P-BUS serial data input/output
64	$\overline{\text{BSCK}}$	I/O	C	P-BUS serial clock input/output

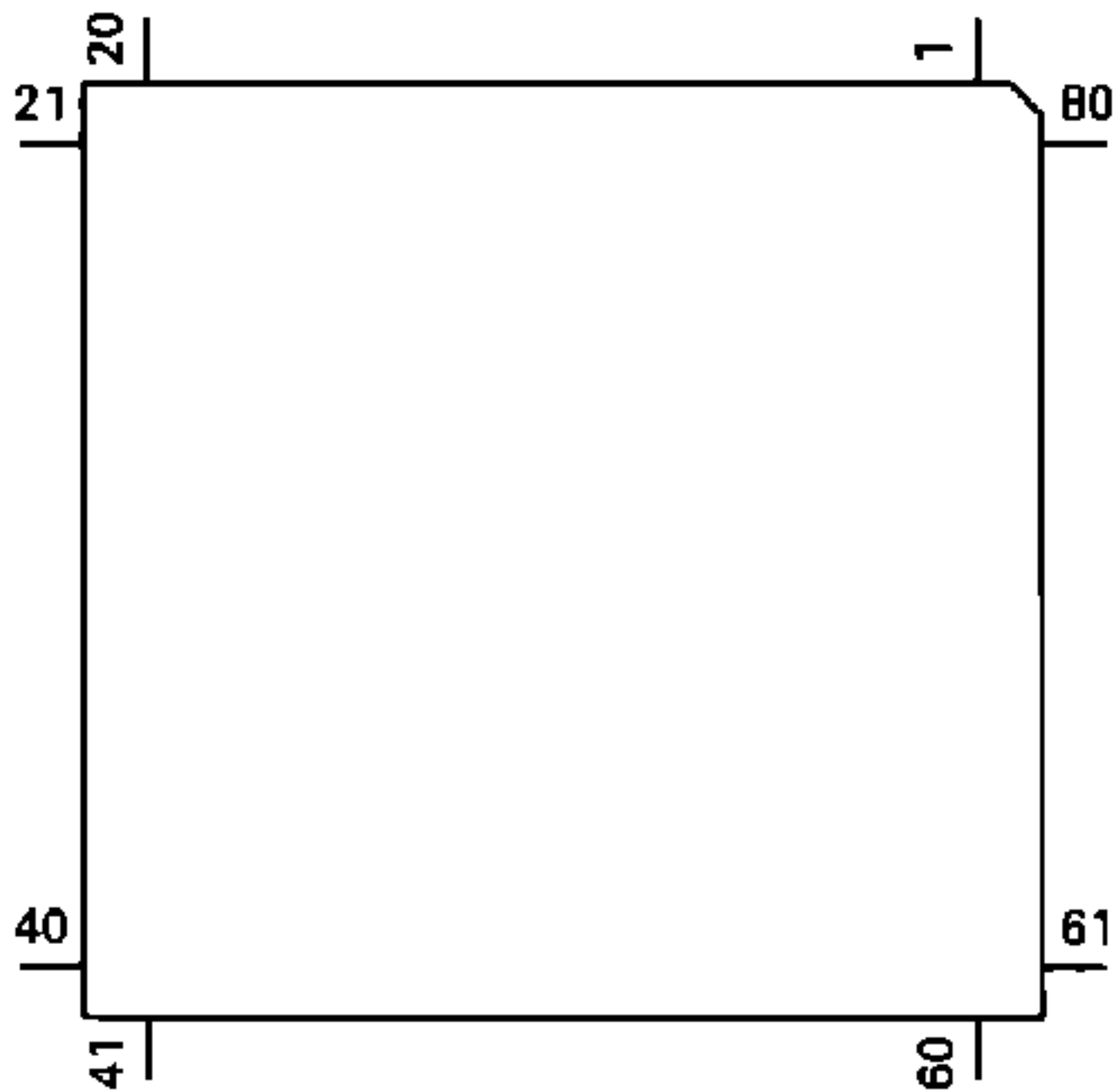
Format	Meaning
C	C MOS

● Pin Functions (PD4722A, PD4754A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	RIDRST	O	C	RBDS/IDLOGIC reset output
2	RIDSEL	O	C	RBDS/IDLOGIC select output
3	NC			Not used
4	AVSS			A/D converter ground potential
5	VCAOUT	O		Sub woofer volume control
6	NC			Not used
7	AVREF	I		D/A converter reference voltage
8	KYDT	I		Communication data input
9	DPDT	O	C	Communication data output
10	SWVDD	O	C	Power supply output
11	RIDDI			RBDS/IDLOGIC communication data
12	RIDDO	O	C	RBDS/IDLOGIC communication data output
13	RIDCK	O	C	RBDS/IDLOGIC communication clock output
14	BRST	O	C	P-BUS reset output
15	BRXEN	I/O	C	P-BUS enable input/output
16	BSRQ	I		P-BUS serial pole request input
17	BSIO	I/O	C	P-BUS serial data input/output
18	BSCK	I/O	C	P-BUS serial clock input/output
19	VST	O	C	Strobe pulse output for electronic volume
20	VDT	O	C	Data output for electronic volume
21	VCK	O	C	Clock output for electronic volume
22	DRELAY	O	C	External relay output
23	DRSYS	O	C	Door system select output
24	STOUT	O	C	Starter cut output
25,26	NC			Not used
27	TUNPCK	O	C	PLL IC clock
28	TUNPDO	O	C	PLL IC data output
29	TUNPCE	O	C	PLL IC chip enable
30	TUNPDI	I		PLL IC data input
31	DRSENS			Door open/close sense
32	DLSENS			Door lock sense
33	VSS			GND
34	MUTE	O	C	Mute output
35	FIEOUT	O	C	FIE ON/OFF control output
36	SUBW0	O	N	Sub woofer control 0
37	SUBW1	O	N	Sub woofer control 1
38	DLED	O	N	Alarm LED output
39	TMUTE	O	N	Tuner mute output
40	BMUTE	O	C	Bus mute output
41	ASENBO	O	C	Slave power supply control output
42	ILMPW	O	C	Illumination power supply control output
43	FM	O	C	FM power control output
44	AM	O	C	AM power control output
45	PEE	O	C	Beep tone output
46	TUNPW	O	C	Tuner power control output
47	SYSPW	O	C	System power control output
48	CDPW	O	C	CD power control
49	PCL	O	C	Clock adjustment output
50	LCDPW	O	C	LCD back light power supply control output
51	DIMMER	O	C	Dimmer output
52	SD	I		FM SD input
53	ST	I		FM stereo input
54	TSENS	I		Illumination sense input
55	NC			Not used
56	TX	O	C	IP BUS data output
57	RX	I		IP BUS data input
58	IPPW	O	C	Power supply control output for IP BUS interface IC
59	NC			Not used

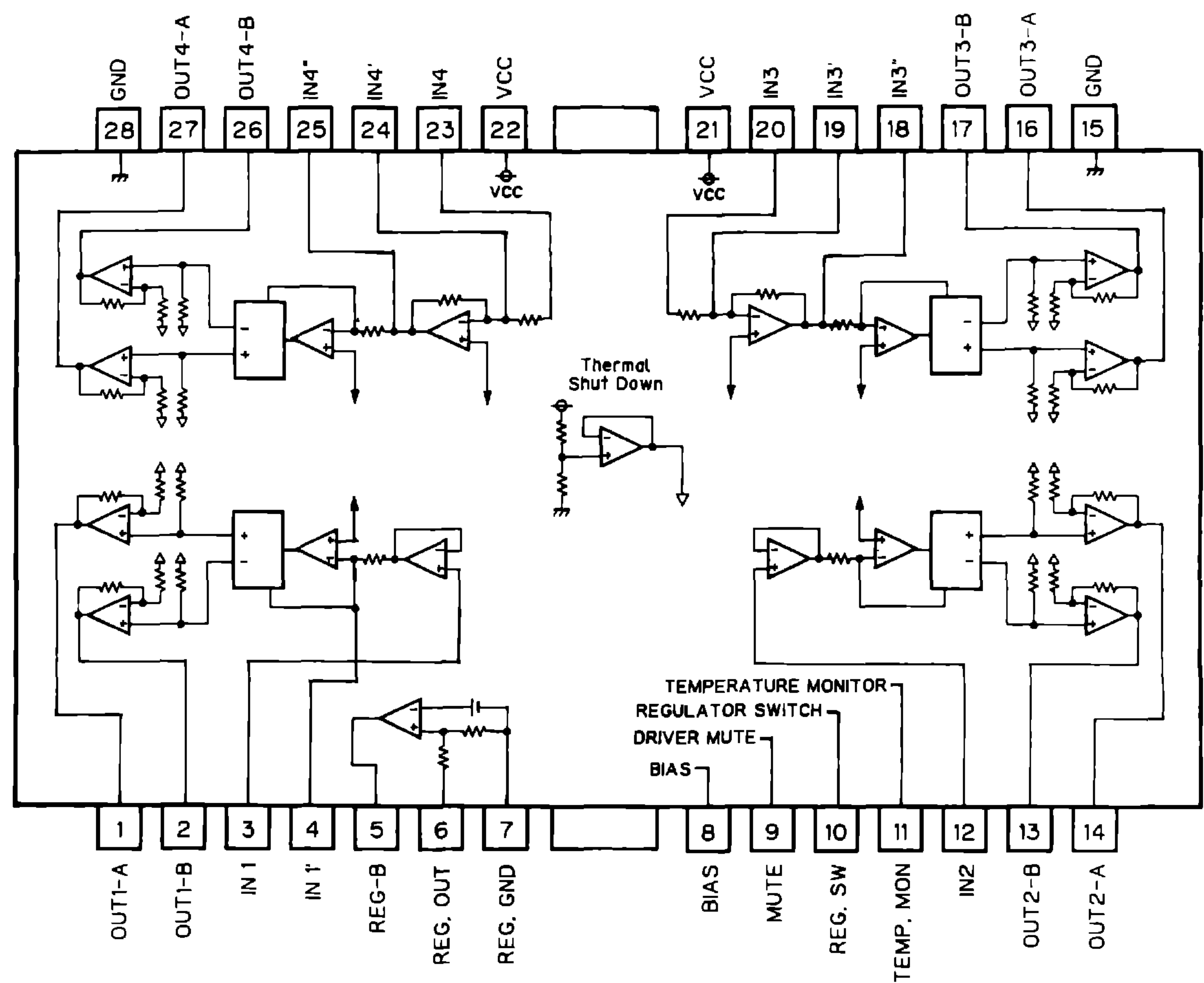
Pin No.	Pin Name	I/O	Format	Function and Operation
60	RESET	I		Reset input
61	RIDRDY	I		Ready input
62	BSENS	I		Back up power sense input
63	ASENS	I		ACC power sense input
64	DSENS	I		Grille detach sense
65	MOSENS	I		Sensor input
66	NC			Not used
67	CLKIN	I	C	Clock input
68	VDD			Power supply
69	X2			Crystal oscillator connection pin
70	X1			Crystal oscillator connection pin
71	IC			GND
72	XT2			Not used
73	TESTIN	I	C	Test program mode input
74	AVDD			A/D converter power supply
75	AVREF0			A/D converter standard voltage input
76	SL	I		Signal level input
77	SEL0	I		Model select pin
78,79	NC			Not used
80	ADPW	O	C	Control output for analog input reference power

*PD4722A,PD4754A

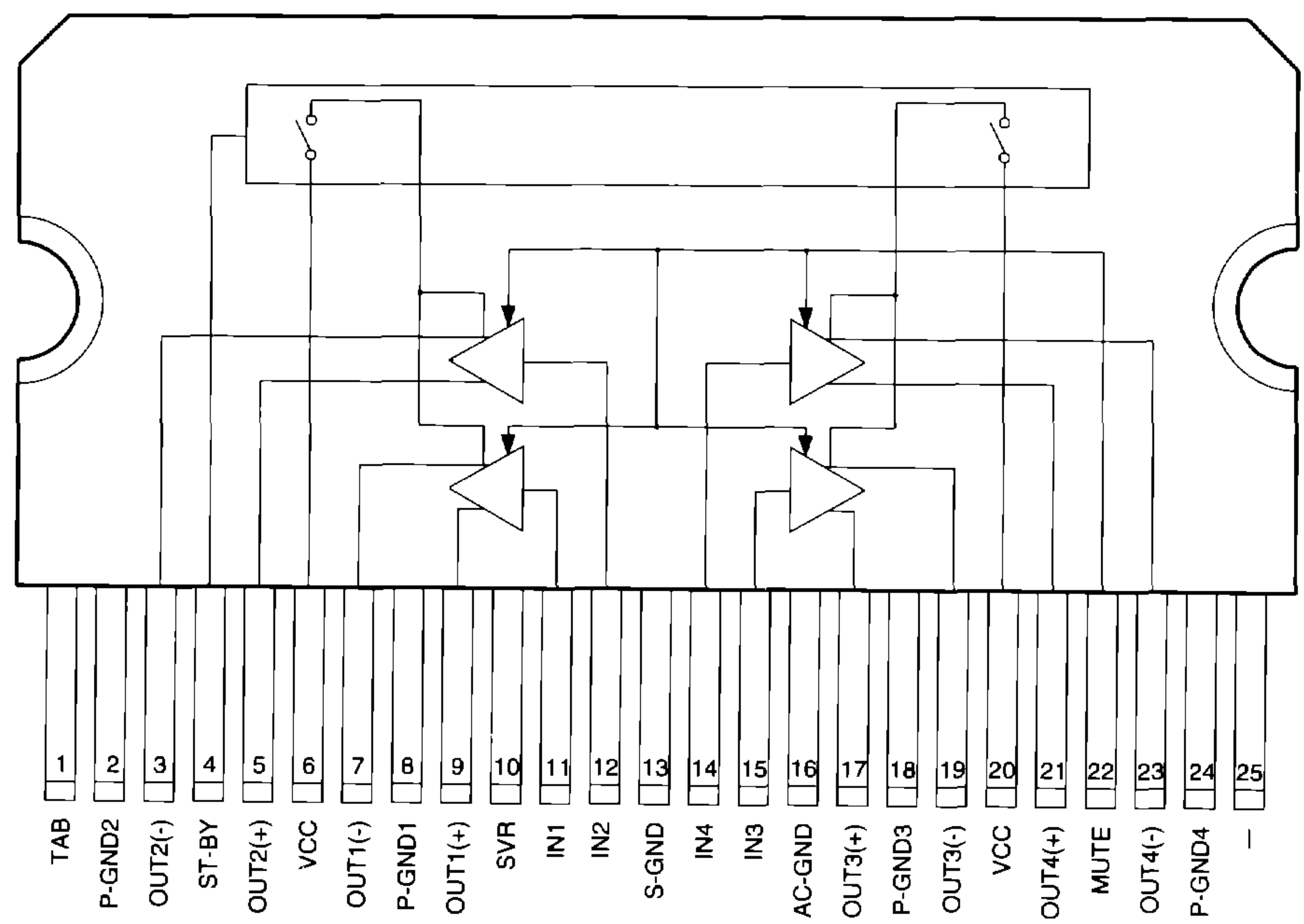


Format	Meaning
C	C MOS
N	Nch open drain

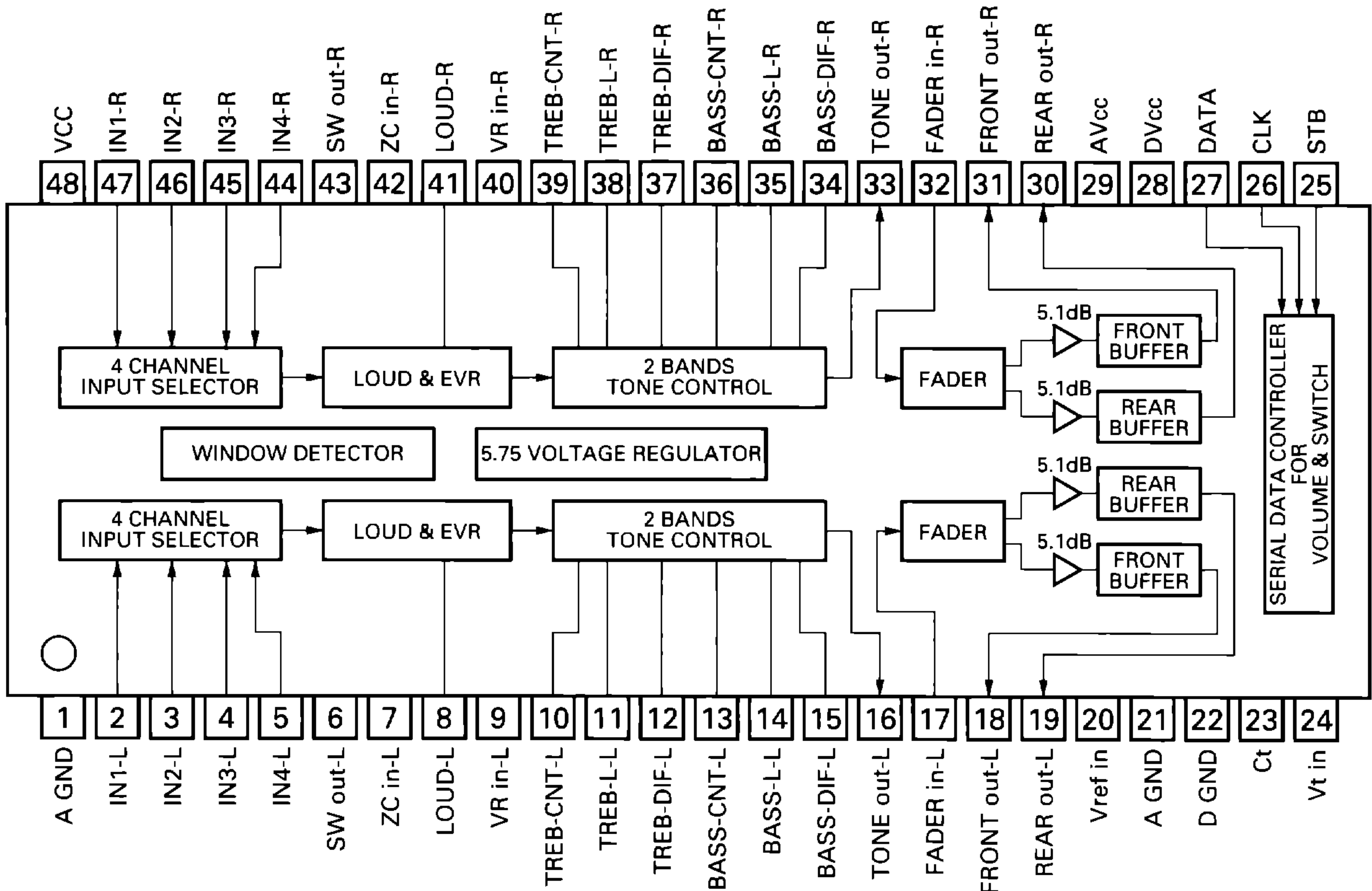
XLA6997FP



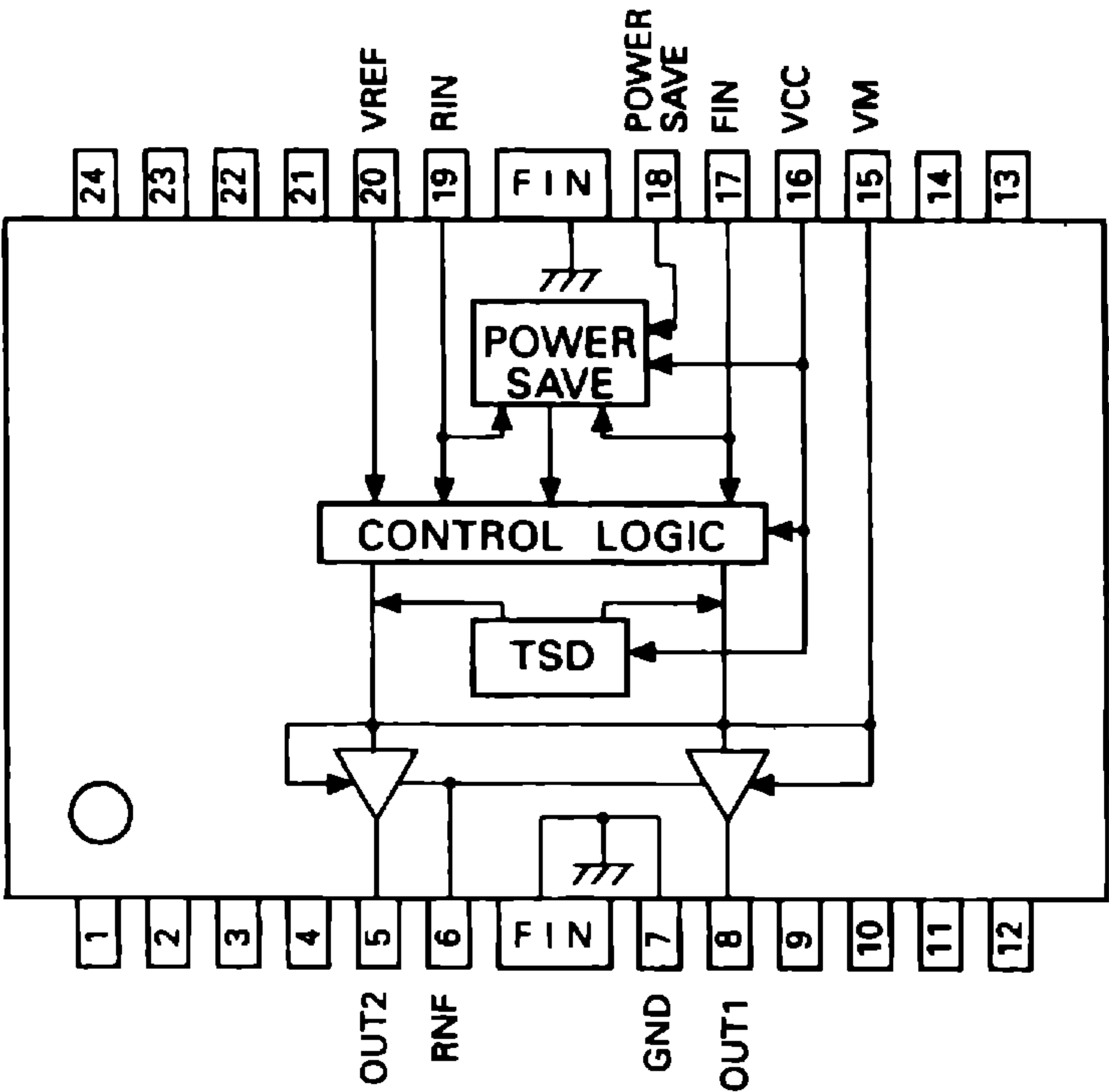
TDA7384A



*SN761027DL



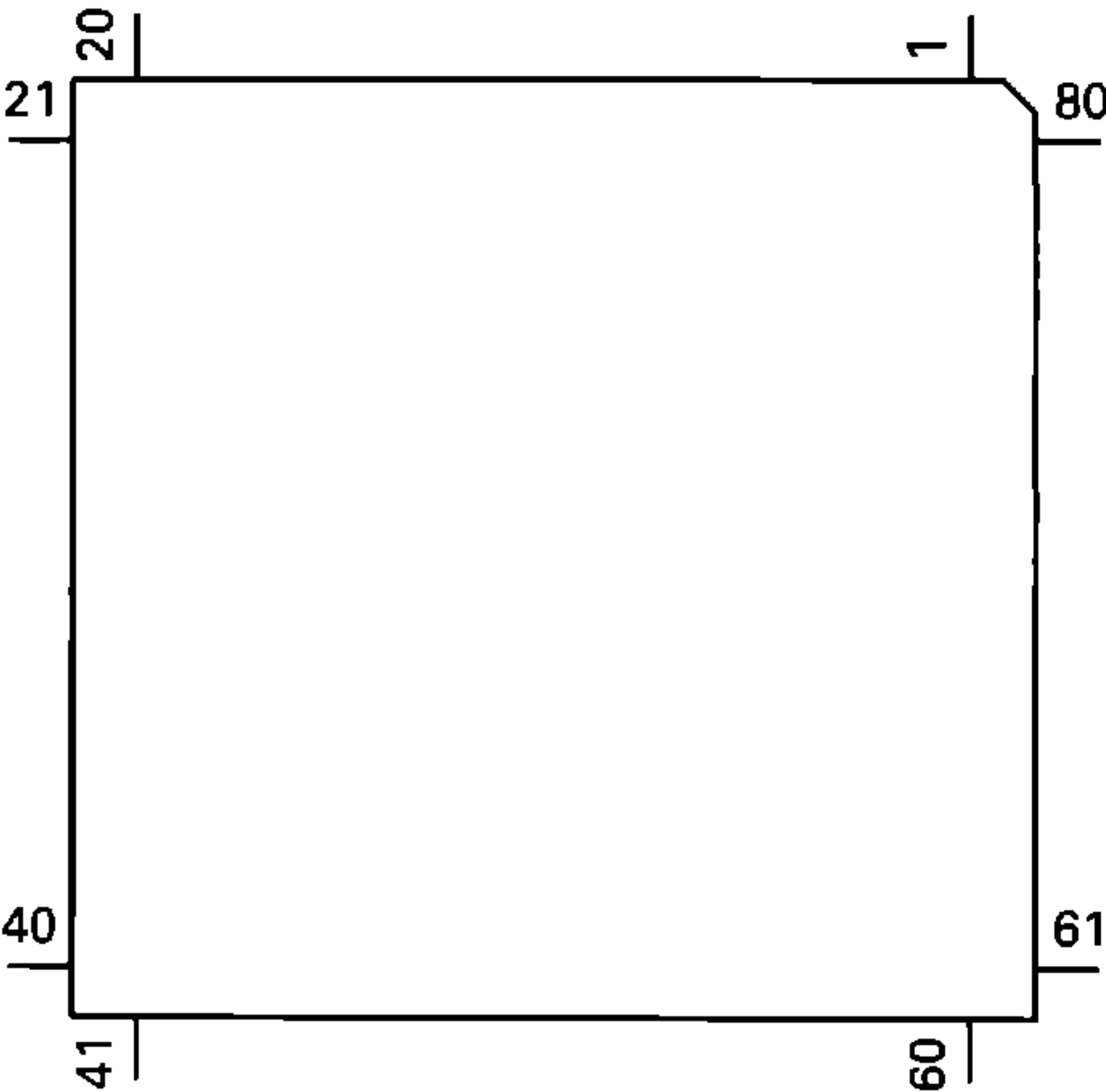
XLA6285FP



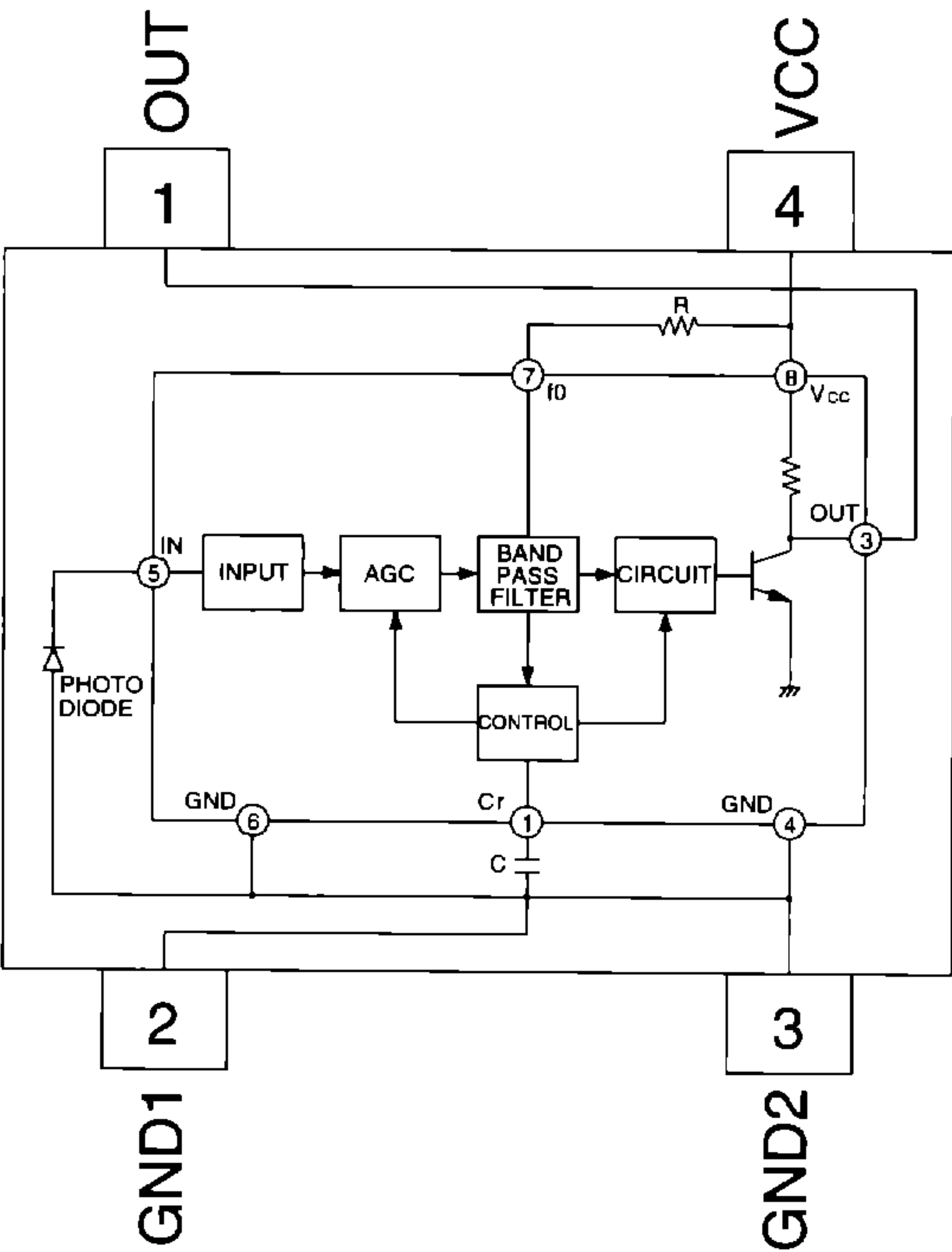
● Pin Functions (PD6197A)

Pin No.	Pin Name	I/O	Function and Operation
1	VSS		GND
2	X1		Crystal oscillator connection pin
3	X0		Crystal oscillator connection pin
4	NC		Not used
5,6	MOD1,0	I	Connect to GND
7	NC		Not used
8	KYDT	O	Display/key data output
9	DPDT	I	Display/key data input
10	REMIN	I	Remote control pulse input
11,12	NC		Not used
13-16	$\overline{KD4}\text{-}\overline{KD1}$	I	Key data input
17-21	$\overline{KS6}\text{-}\overline{KS2}$	O	Key strobe output
22	NC		Not used
23	VDD		VDD
24-73	SEG0-49	O	LCD segment output
74-77	COM3-0	O	LCD common output
78	VLCD	I	LCD voltage input
79,80	V2,V1		Power supply terminal

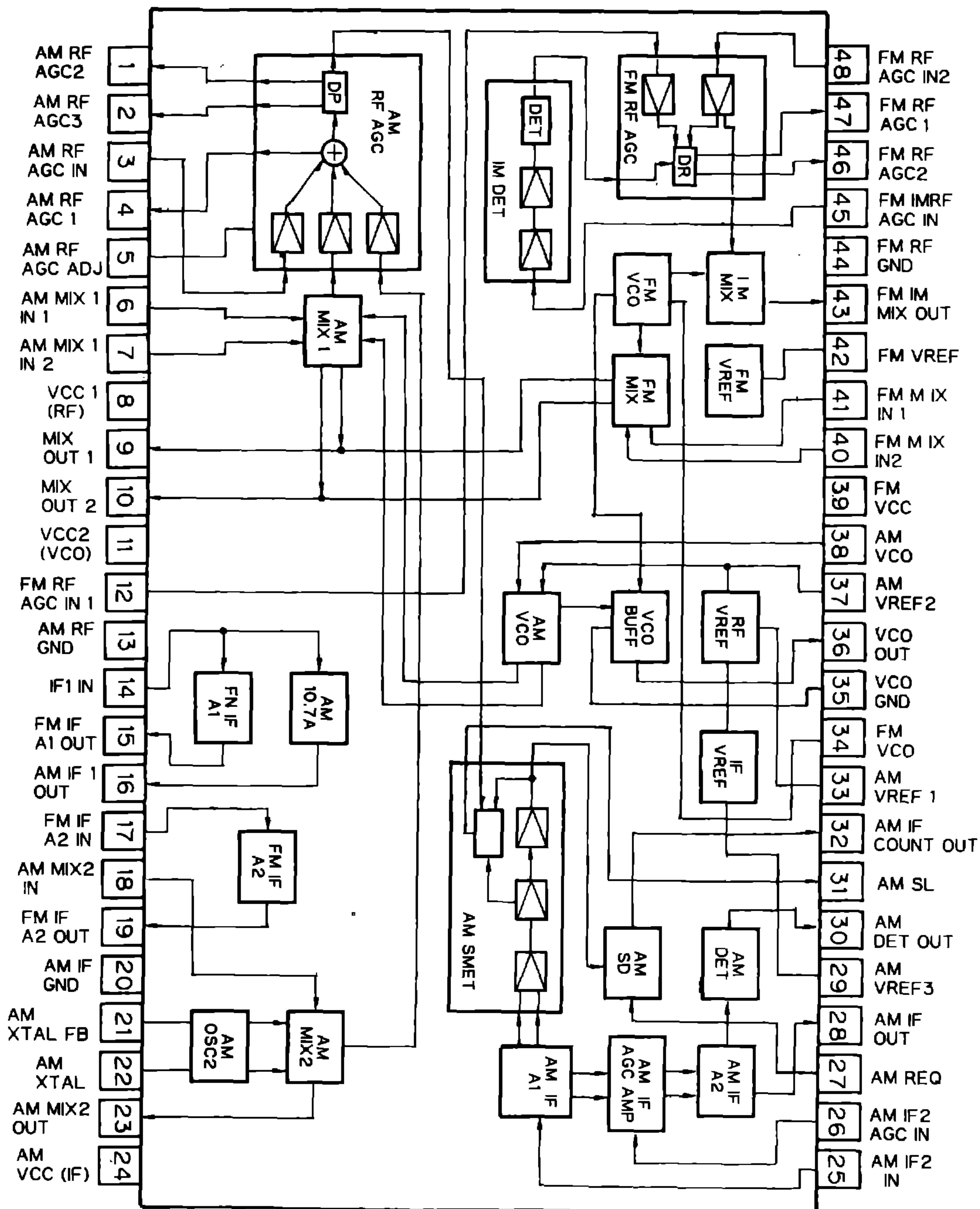
*PD6197A



RS-140



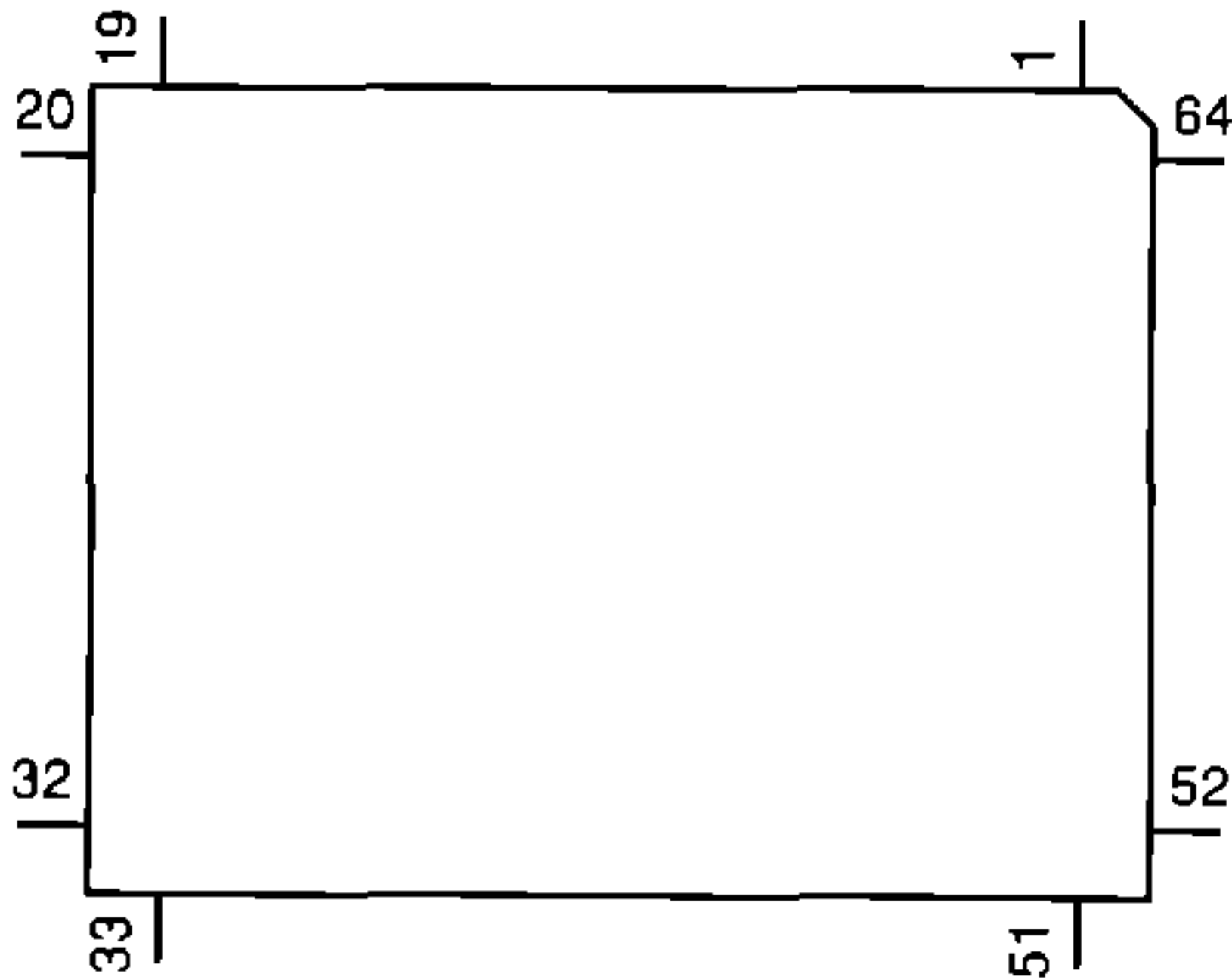
PA4023B



● Pin Functions (PD6191A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1-8	OPEN			Open
9	OE	O		ROM output control
10	ROMEN	O		ROM enable
11	ADD17	O		ROM address
12	AVCC			Analog power supply
13	AVR			5V power supply
14	AVSS			Connect to GND
15	IRSEL	I		Select input
16	RCK	I		RDS demodulation clock input
17	RDT	I		RDS demodulation data input
18	OPEN			Open
19	RDSLK	I		RDS LK signal input
20	IRRST	I		Reset input
21	MOD0	I		Connect to GND
22	MOD1	I		Connect to GND
23	XIN	I		Crystal oscillating element connection pin
24	XOUT	O		Crystal oscillating element connection pin
25	VSS			GND
26	DRST	O	C	Reset output
27,28	OPEN			Open
29	IRRDY	O	C	Communication ready output
30-33	ADD16-13	O		ROM address
34-41	ADD7-0	O		ROM address
42-49	DT7-0	I		ROM data input
50	VSS			GND
51	TEST	I		Test terminal
52	IRSCK			Communication clock input
53	IRDO	O	C	Communication data output
54	IRDI	I		Communication data input
55,56	OPEN			Open
57	VCC			5V
58	SD	I		SD signal input
59	OPEN			Open
60-64	ADD8-12	O		ROM address

*PD6191A

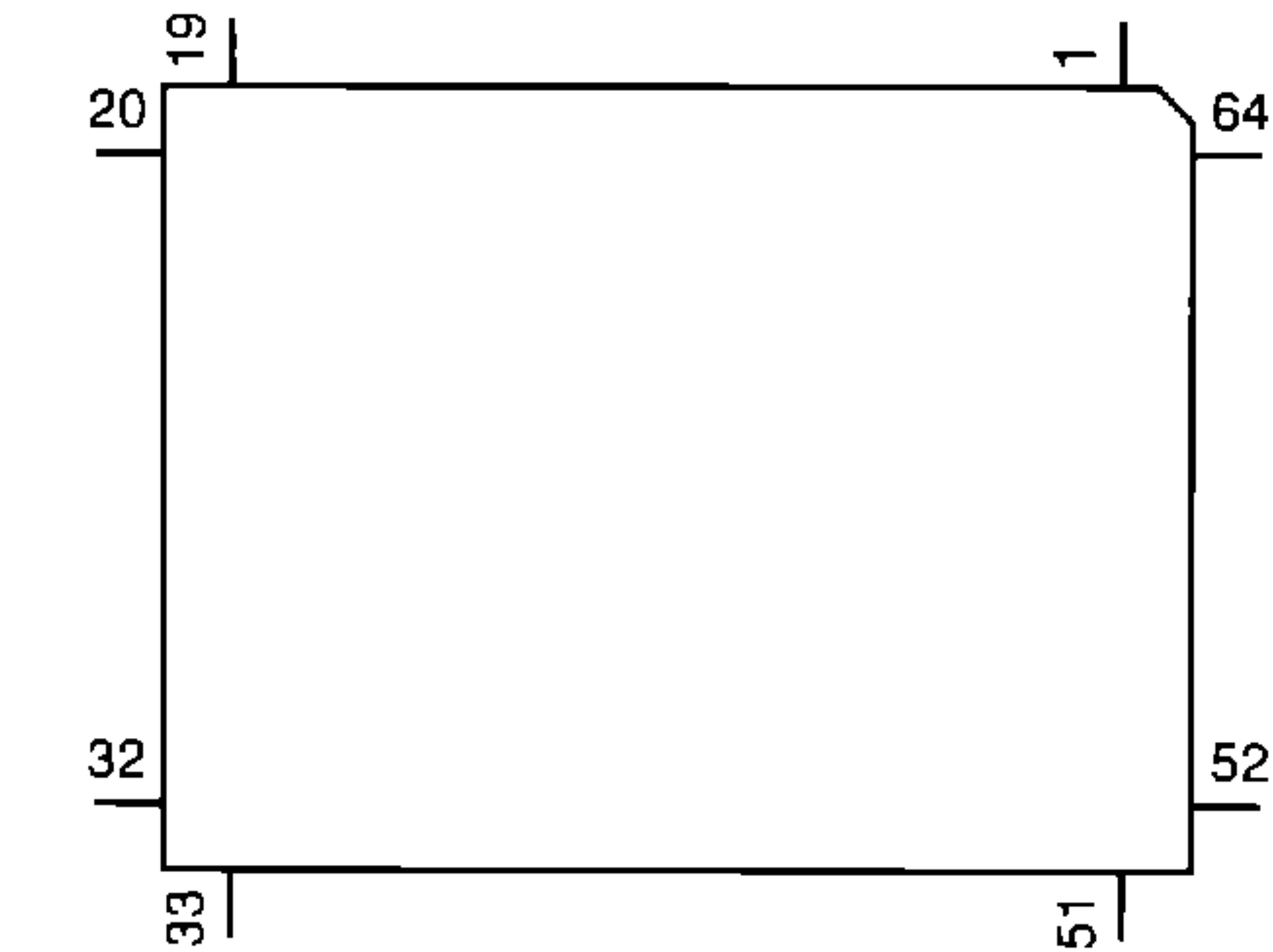


Format	Meaning
C	C MOS

● Pin Functions (PD6194A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1-8	OPEN			Open
9	OE	O		ROM output control
10	ROMEN	O		ROM enable
11	ADD17	O		ROM address
12	AVCC			Analog power supply
13	AVR			5V power supply
14	AVSS			Connect to GND
15	IRSEL	I		Select input
16-19	OPEN			Open
20	IRRS	I		Reset input
21	MOD0	I		Connect to GND
22	MOD1	I		Connect to GND
23	XIN	I		Crystal oscillating element connection pin
24	XOUT	O		Crystal oscillating element connection pin
25	VSS			GND
26-28	OPEN			Open
29	IRRDY	O	C	Communication ready output
30-33	ADD16-13	O		ROM address
34-41	ADD7-0	O		ROM address
42-49	DT7-0	I		ROM data input
50	VSS			GND
51	TEST	I		Test terminal
52	IRSCK			Communication clock input
53	IRDO	O	C	Communication data output
54	IRDI	I		Communication data input
55,56	OPEN			Open
57	VCC			5V
58,59	OPEN			Open
60-64	ADD8-12	O		ROM address

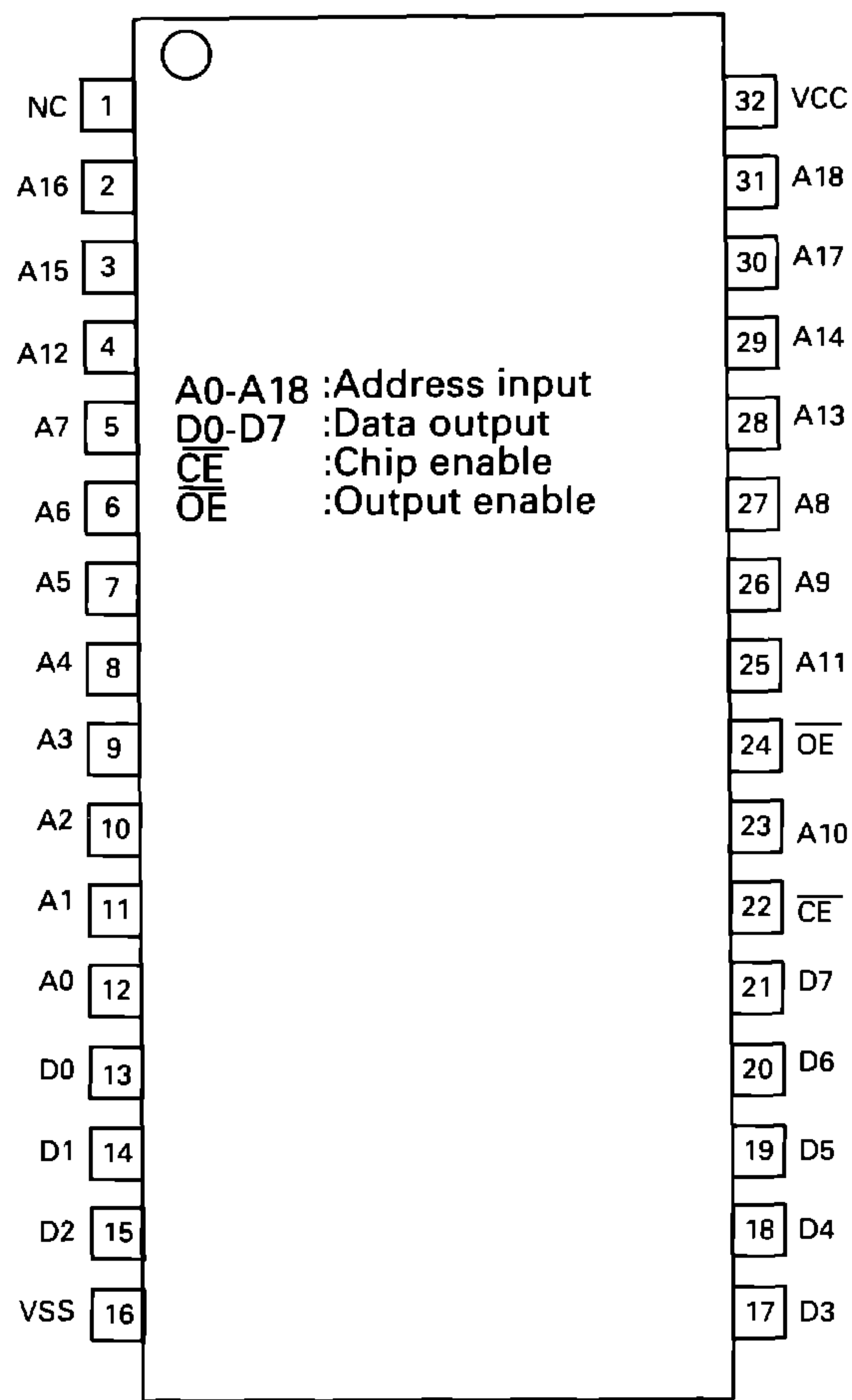
*PD6194A



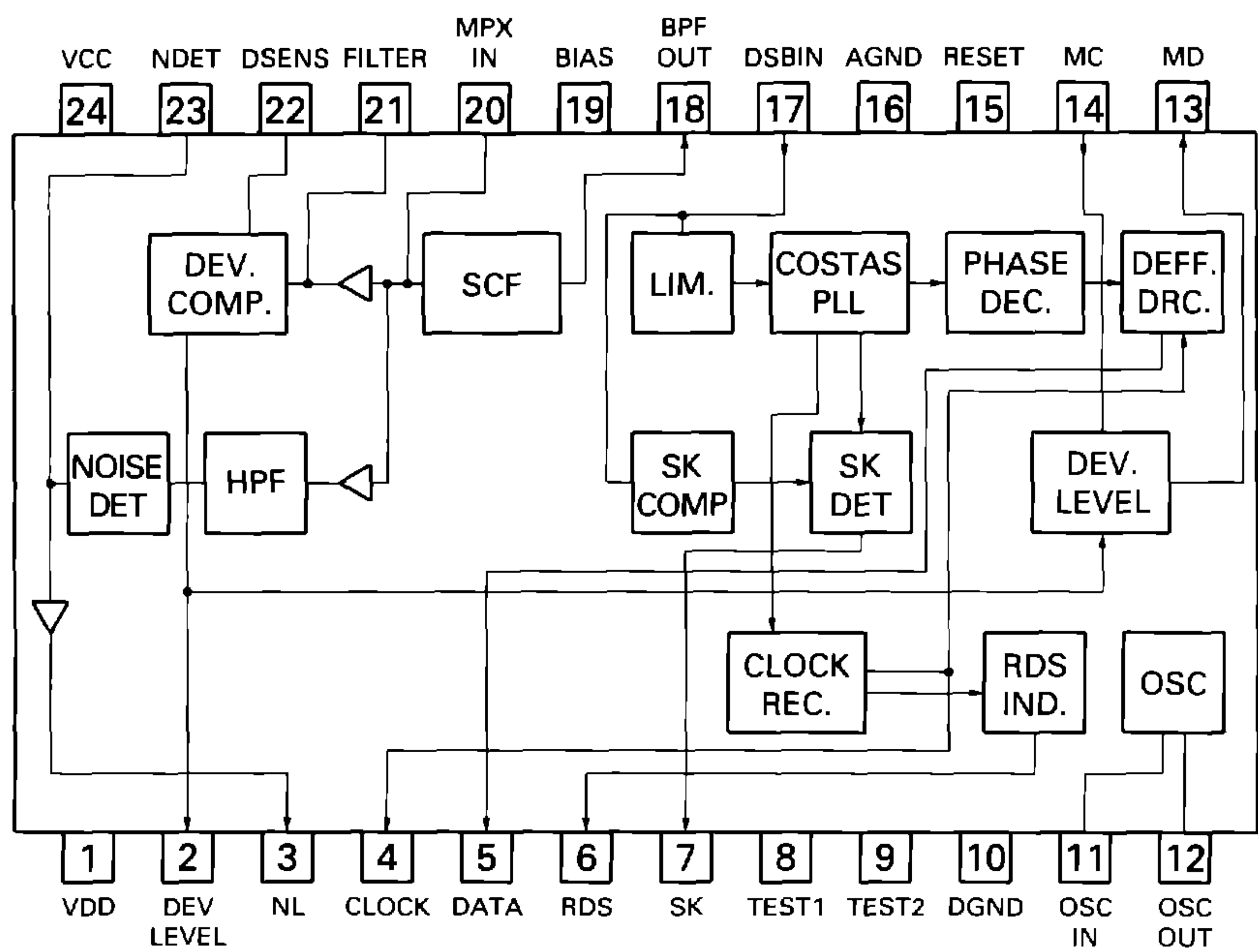
Format	Meaning
C	C MOS

DEH-P85DHR,P75DH

*PD8027A



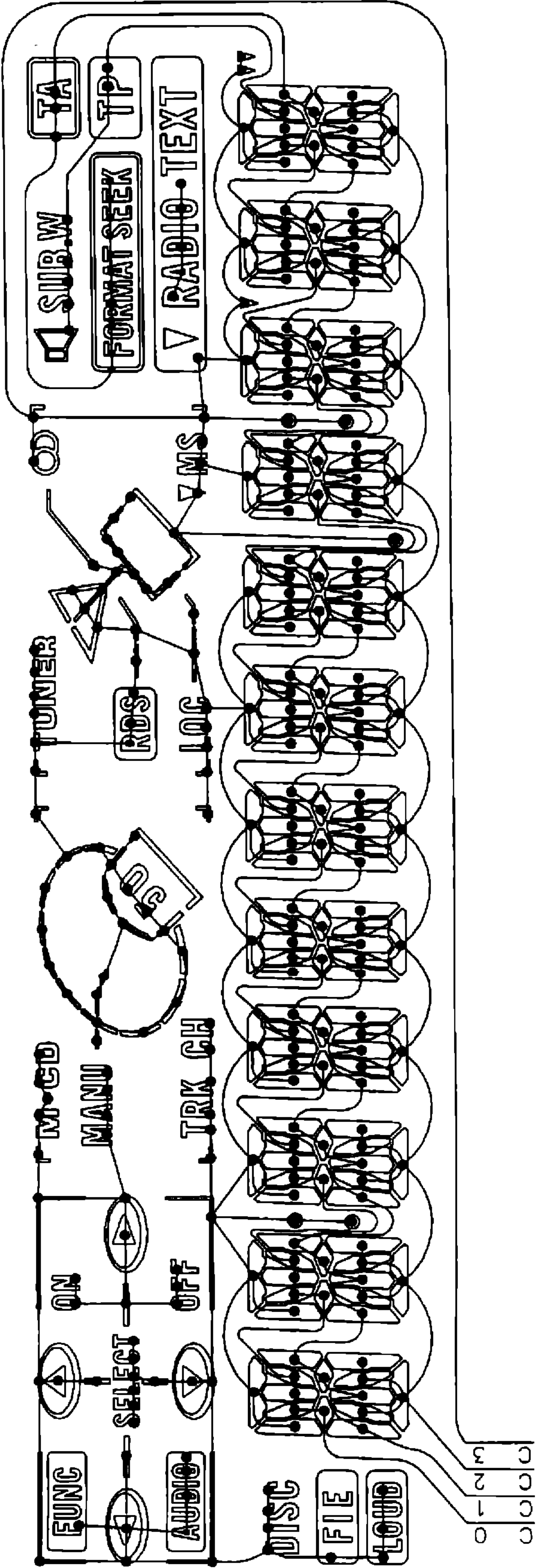
*PMW001B



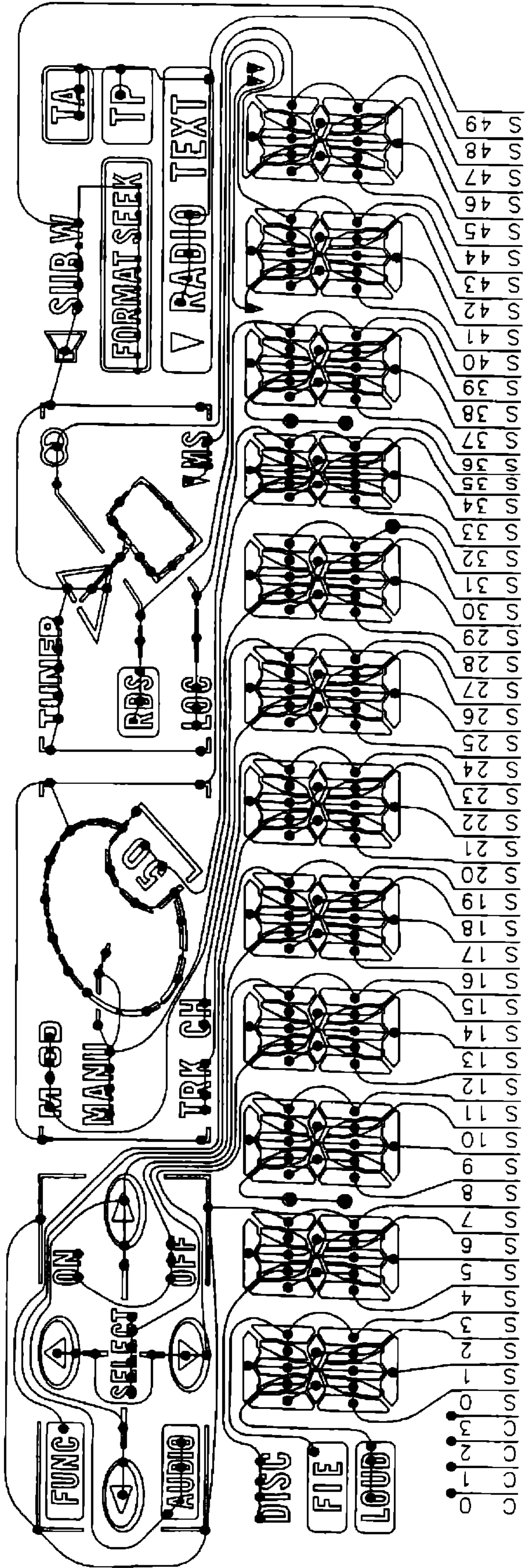
7.1.2 DISPLAY

● LCD(CAW1389, CAW1390)

COMMON



SEGMENT



7.2 DIAGNOSIS

7.2.1 DISASSEMBLY

● Removing the Case

1. Remove the three screws A, and then remove the case.

● Removing the Panel Assy

1. Remove the three screws B.
2. Disconnect the five stoppers C, and then remove the panel assy.

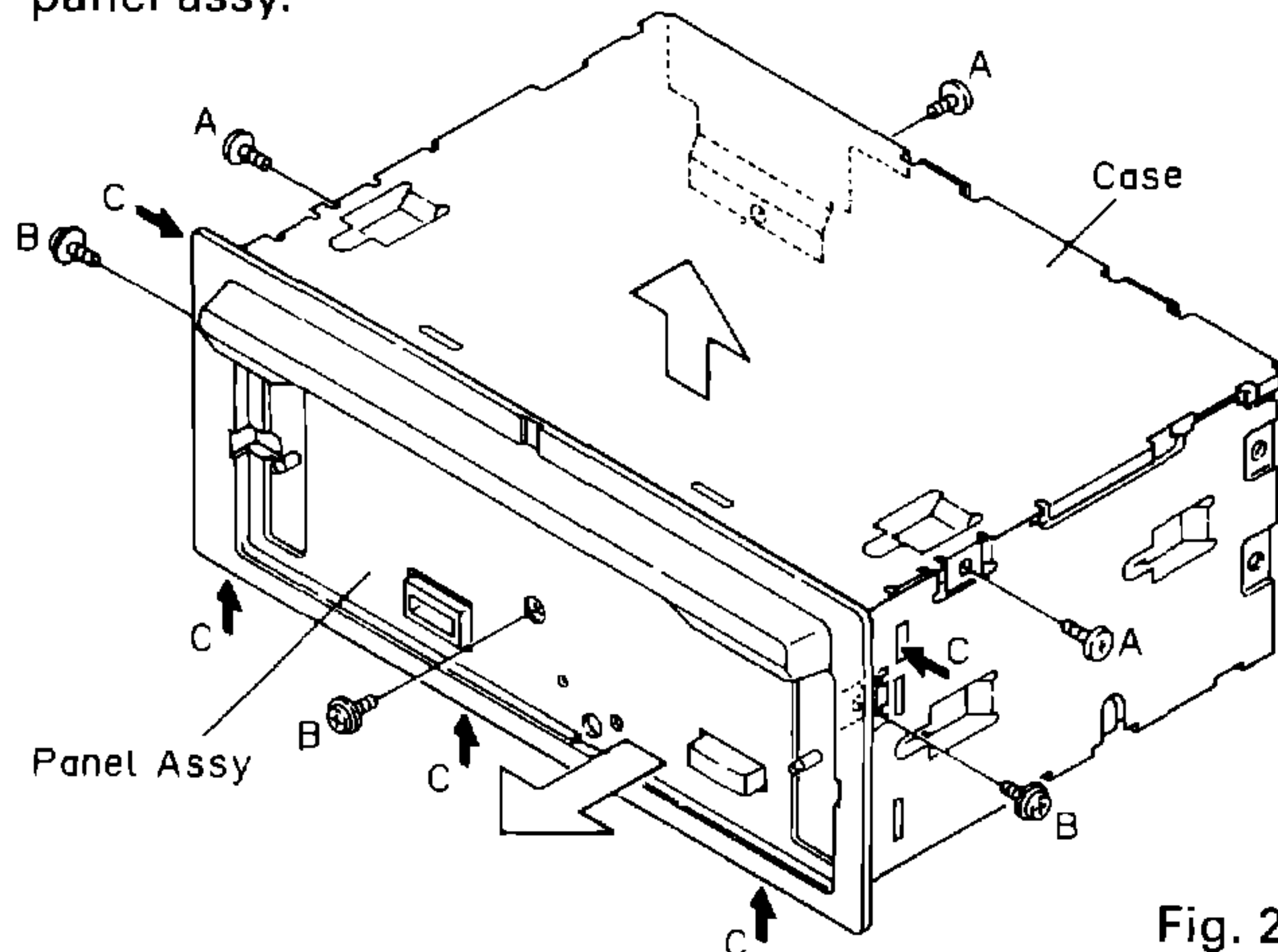


Fig. 29

● Removing the CD Mechanism Module

1. Remove the four screws D.
2. Disconnect the connector indicated by arrow.
3. Remove the CD Mechanism Module.

● Removing the Bracket

1. Remove the four screws E, and then remove the bracket.

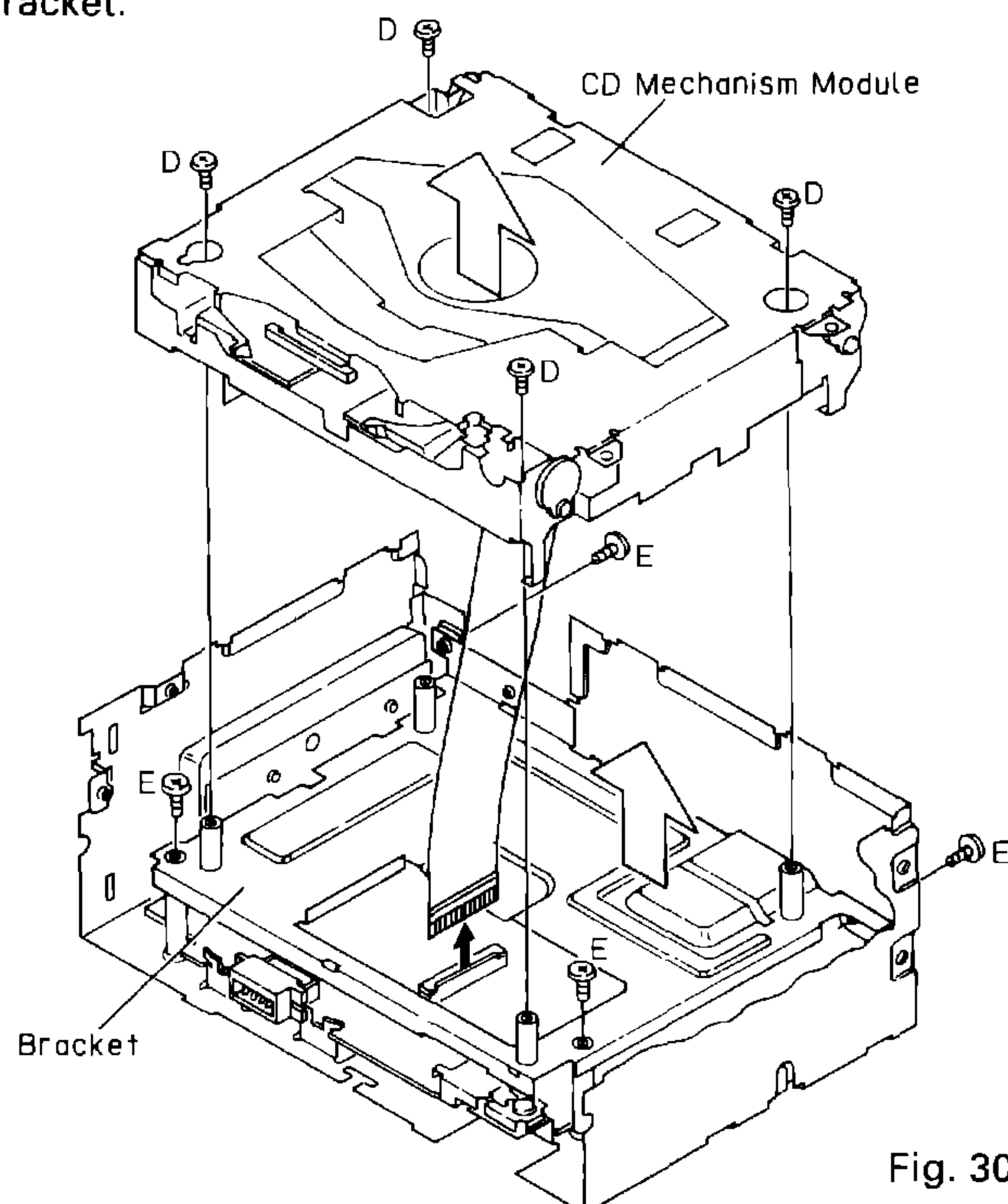


Fig. 30

● Removing the Tuner Amp PCB

1. Remove the six screws.
2. Stretch the four claws, and then remove the tuner amp PCB.

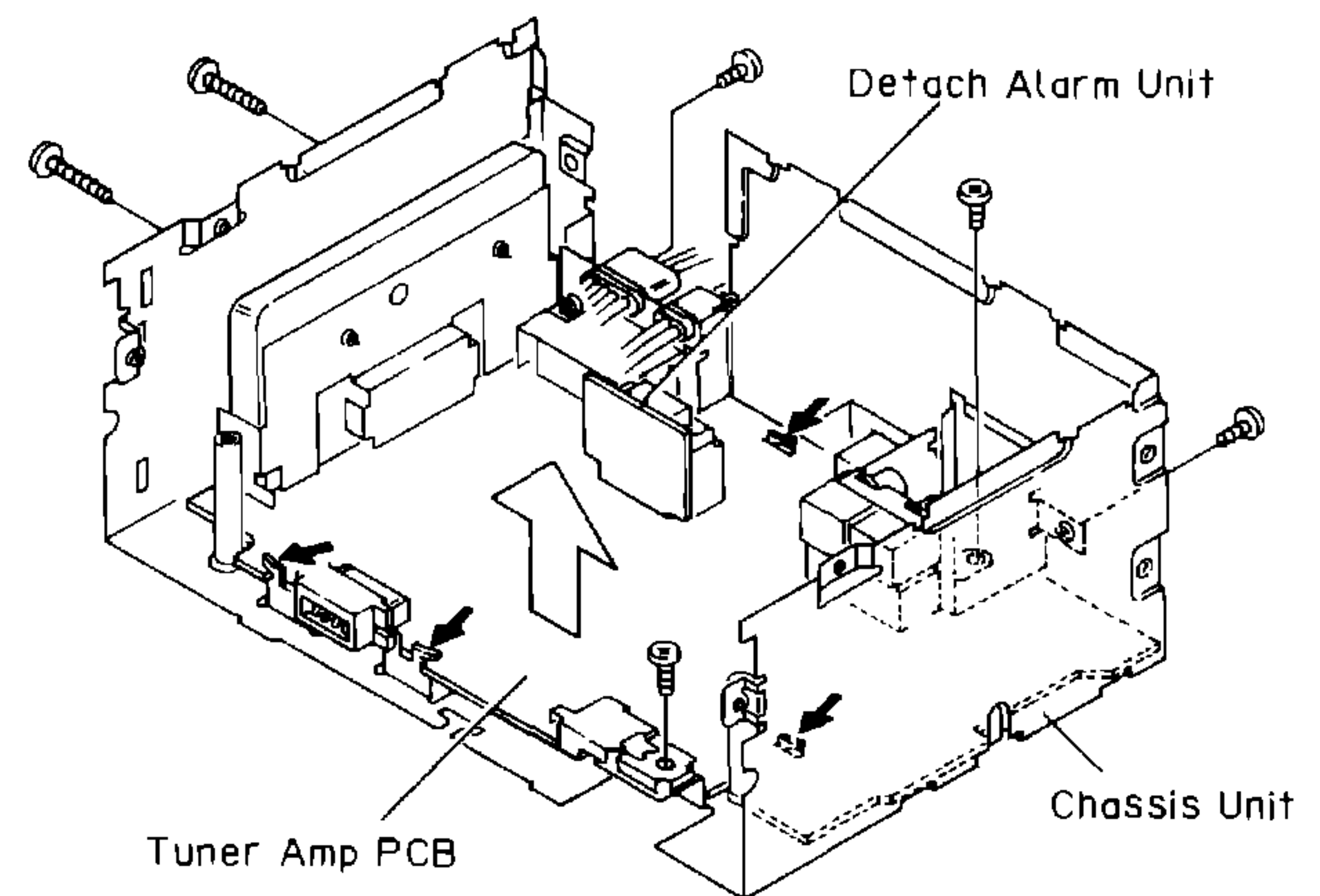


Fig. 31

7.2.2 TEST MODE

● Error Number Indication

If the CD should fail to operate or if an error has taken place during operation the player will enter into the error mode, and the cause of the error will be numerically indicated.
This is aimed at assisting in analysis or repair.

(1) Examples of Display

·ERROR- XX

(2) Error Codes

Error Code	Classification	Description	Cause/Detail
10	ELECTRIC	Carriage home failure	Carriage doesn't move to or from the innermost position →Home switch failed and/or carriage immobile
11	ELECTRIC	Focus failure	Focus failed →Defects, disc upside-down, severe vibration
12	ELECTRIC	Spindle lock failure Subcode failure	Spindle failed to lock or subcode unreadable →Spindle defective, defect, severe vibration
14	ELECTRIC	Mirror failure	Unrecorded CD-R The disc is upside-down, defects, vibration
17	ELECTRIC	Set up failure	AGC protect failed →Defects, disc upside-down, severe vibration
19	ELECTRIC	Set up failure	Tracking error waveform is too unbalanced (>50%) or level is too small →The P.U.unit or tracking error circuitry is N.G.
30	ELECTRIC	Search time out	Failed to reach target address →Carriage/tracking defective and/or defects
A0	SYSTEM	Power failure	Power overvoltage or short circuit detected →Switching transistor defective and/or power abnormal

● New Test Mode(aging operation and setup analysis)

The single CD player plays in normal mode. After being set up, it will display FOK (focus), LOCK (spindle), subcode, sound skip, protection against a mechanical error or the like, occurrence of an error, cause and time of an expiry, if any, (and disk number)
During the setup, the CD software operation status (internal RAM and C-point)is displayed.

(1) How to enter NEW TEST Mode

See the test mode flow chart Page 59.

(2) Relations of keys between TEST and NEW TEST Modes

Keys	Test Mode		New Test Mode	
	Regulator OFF	Regulator ON	PLAY in progress	Error Occurred, Protection Activated
BAND	Regulator ON	Regulator OFF	—	Time of occurrence / cause of error select
>	—	FWD-Kick	TRACK UP / FF	—
<	—	REV-Kick	TRACK DOWN /REV	—
1	—	Tracking close	SCAN	—
2	—	Tracking open	REPEAT	—
3	—	Focus close	RANDOM	—
6	To New Test Mode	Focus Mode Select	AUTO/MANU	—

Operations,such as EJECT, CD ON/OFF, etc. are performed normally

(3) Error Cause (Error Number) Code

Error Code	Classification	Mode	Description	Cause	Detail
40	ELECTRIC	PLAY	FOK=L 100ms	Put out of focus	Scratch, Stain, Vibration, Servo defect, etc...
41	ELECTRIC	PLAY	LOCK=L 100ms	Spindle unlock	
42	ELECTRIC	PLAY	Subcode unacceptable 500ms	Failed to read subcode	
43	ELECTRIC	PLAY	Sound skipped	Last address memory operated	

(4) Indicating an Operation Status During Setup

Status No.	Description	Protection operation
01	Carriage home mode started	None
02	Carriage moving inwards	10-second time out, Home switch failed
03	Carriage moving outwards	10-second time out, Home switch failed
05	Carriage moving outwards	None
11	Setup started	None
12	Spindle turn/Focus search started	None
13	Waiting for focus closure (XSI=L)	Failure to close focus
10,14	Waiting for focus closure (FOK=H)	Failure to close focus
15, 16, 17	Focus closed, Tracking open	Focus disrupted
18	During focus AGC Subcode waiting	Focus disrupted
19	During tracking AGC	Disrupted focus
20	Waiting for MIRR, LOCK or subcode read Carriage closed, SPINDLE=ADAPTIVE	Focus disrupted, MIRR NG, Failure to lock, Failed to read subcode

(5) Example of Display.

·SET UP in progress
8 digits display LCD

TNo.	Min	Sec
11	11	11

·Operation (PLAY, SEARCH, etc.) in progress perfectly identical with that in the normal mode.

·Protection/Error upon occurrence(8 digits display LCD)

(a) Error number indicated

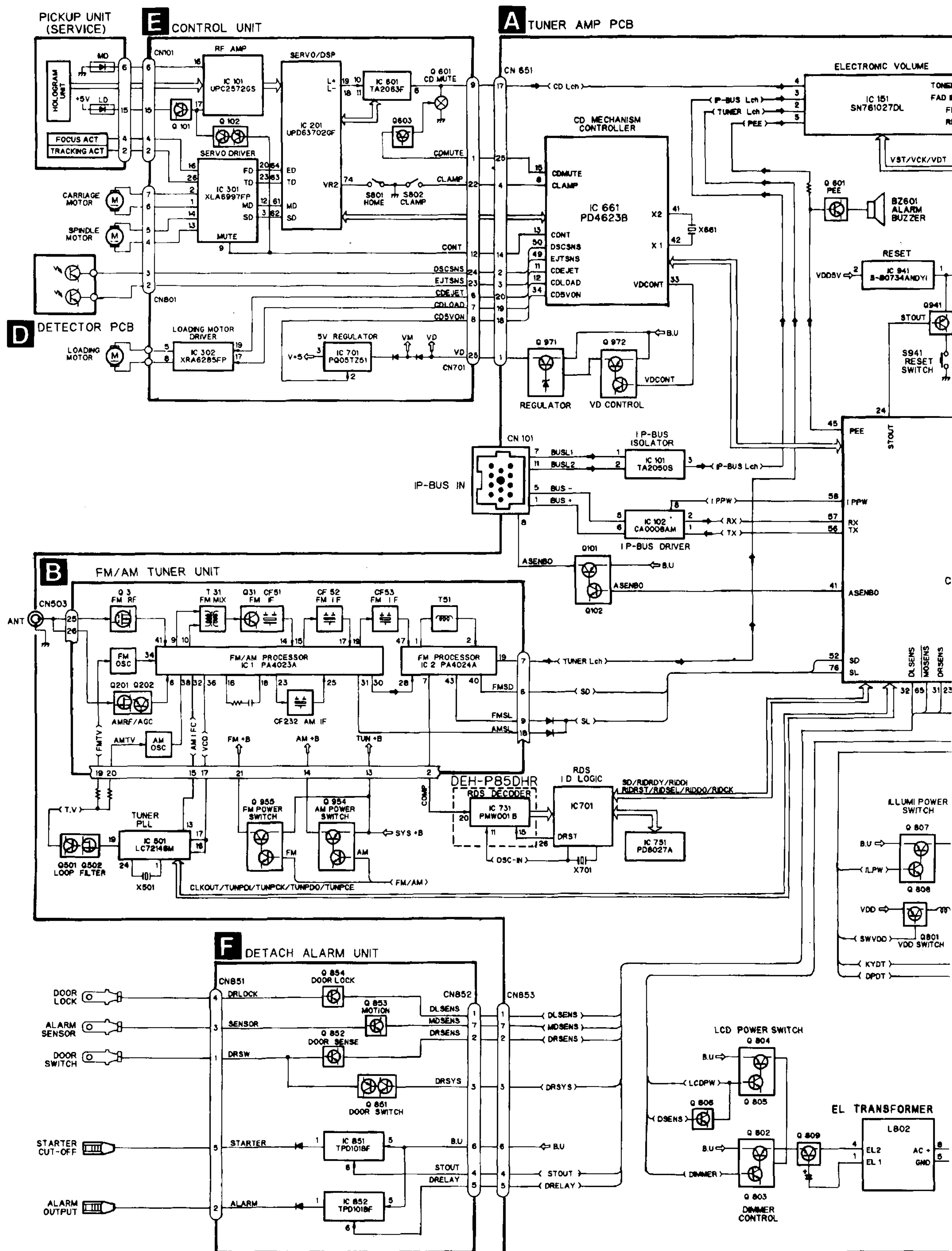
ERROR-xx

Select the display with the
BAND key.

(b) Track number and
absolute time indicated

TNo.	Min	Sec
10	40	05

7.3 BLOCK DIAGRAM



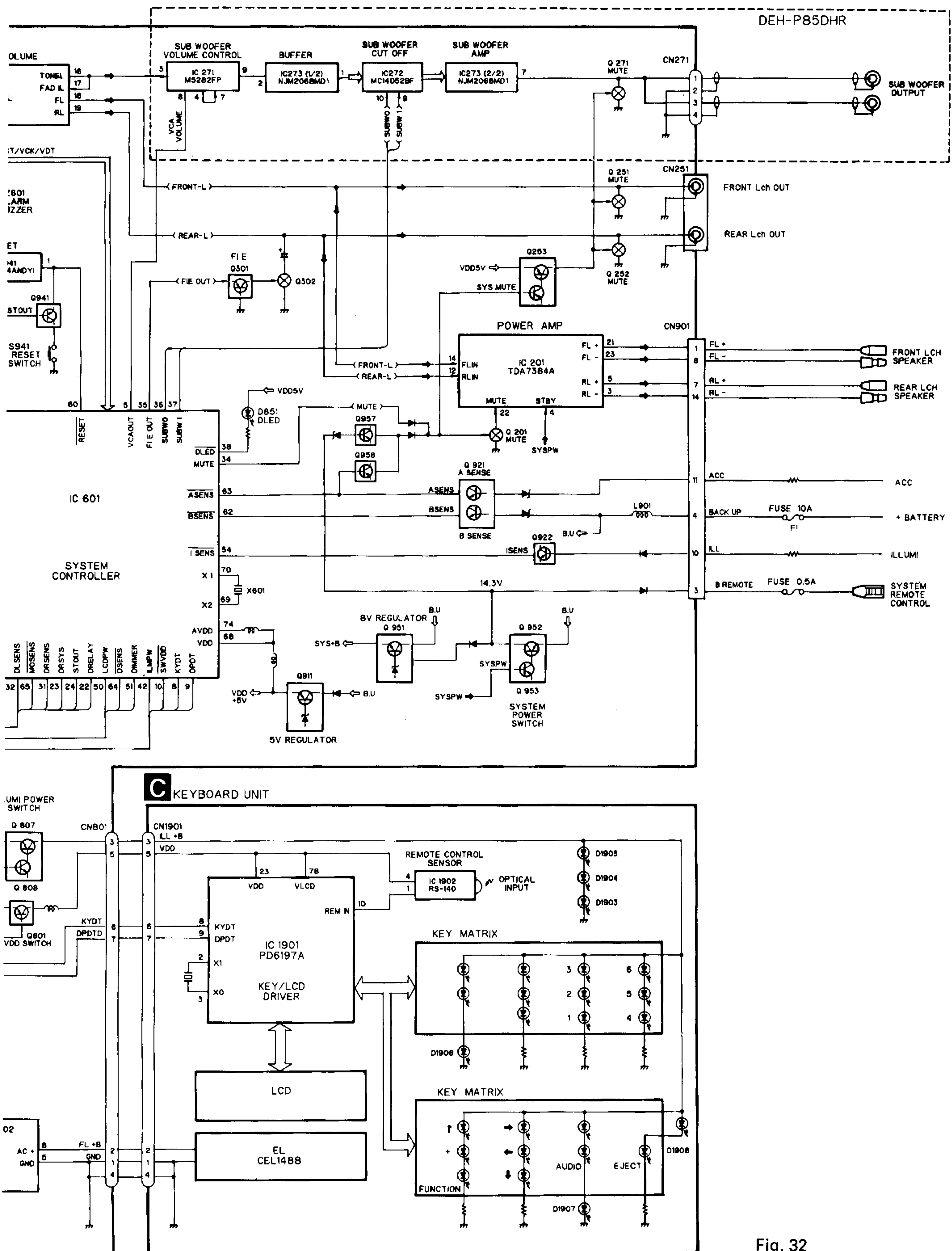


Fig. 32

8. OPERATIONS AND SPECIFICATIONS

Key Finder

■ Head Unit (DEH-P85DHR)

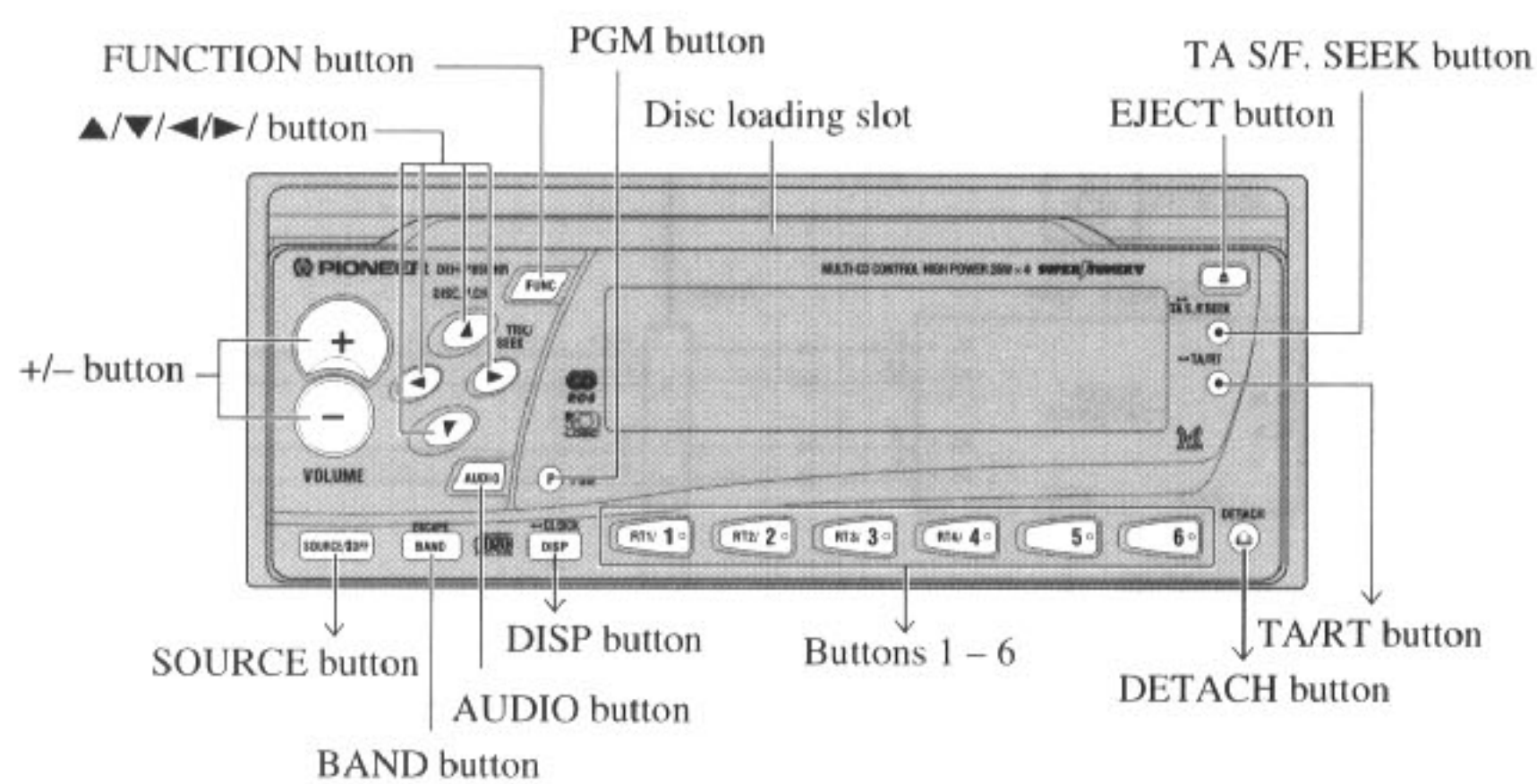


Fig. 33

■ Remote Controller

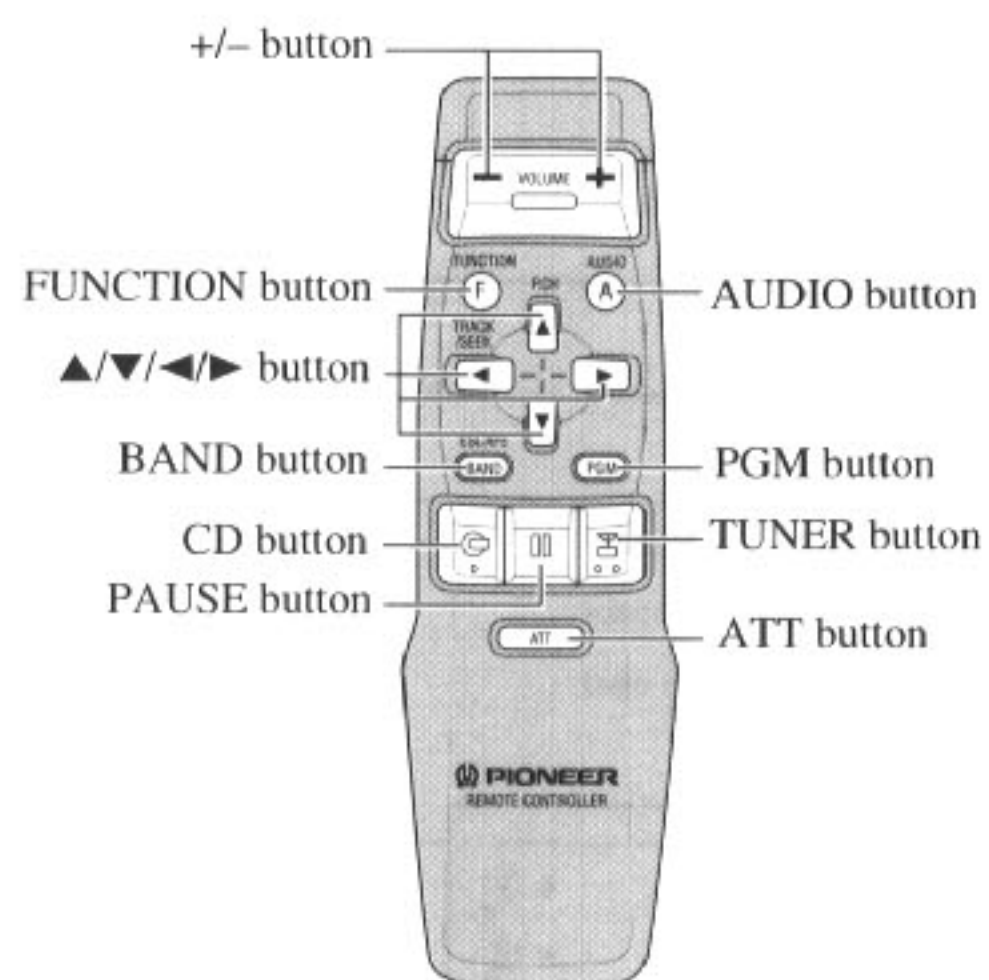


Fig. 34

Key Finder

■ Head Unit (DEH-P75DH)

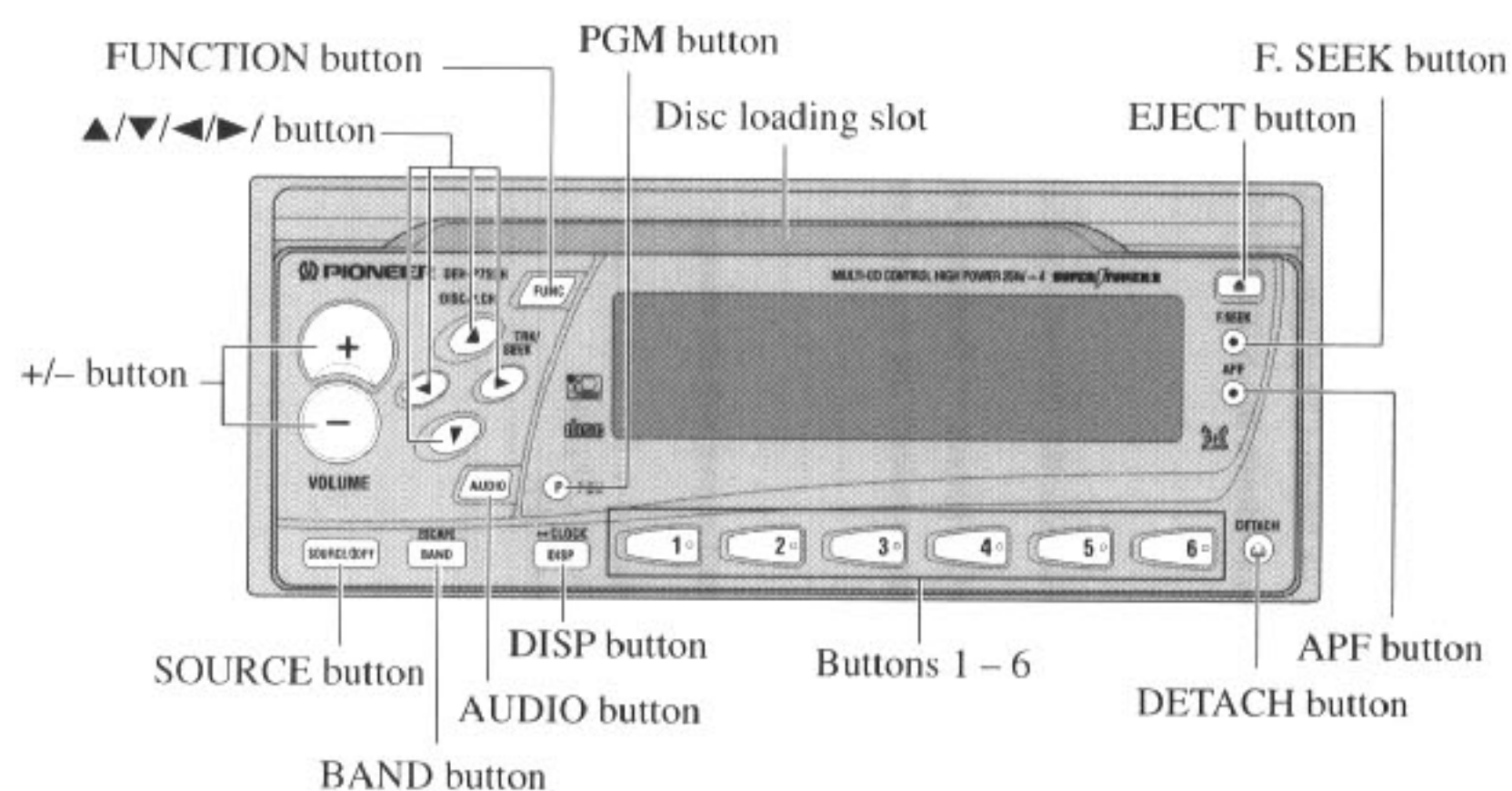


Fig. 35

■ Remote Controller

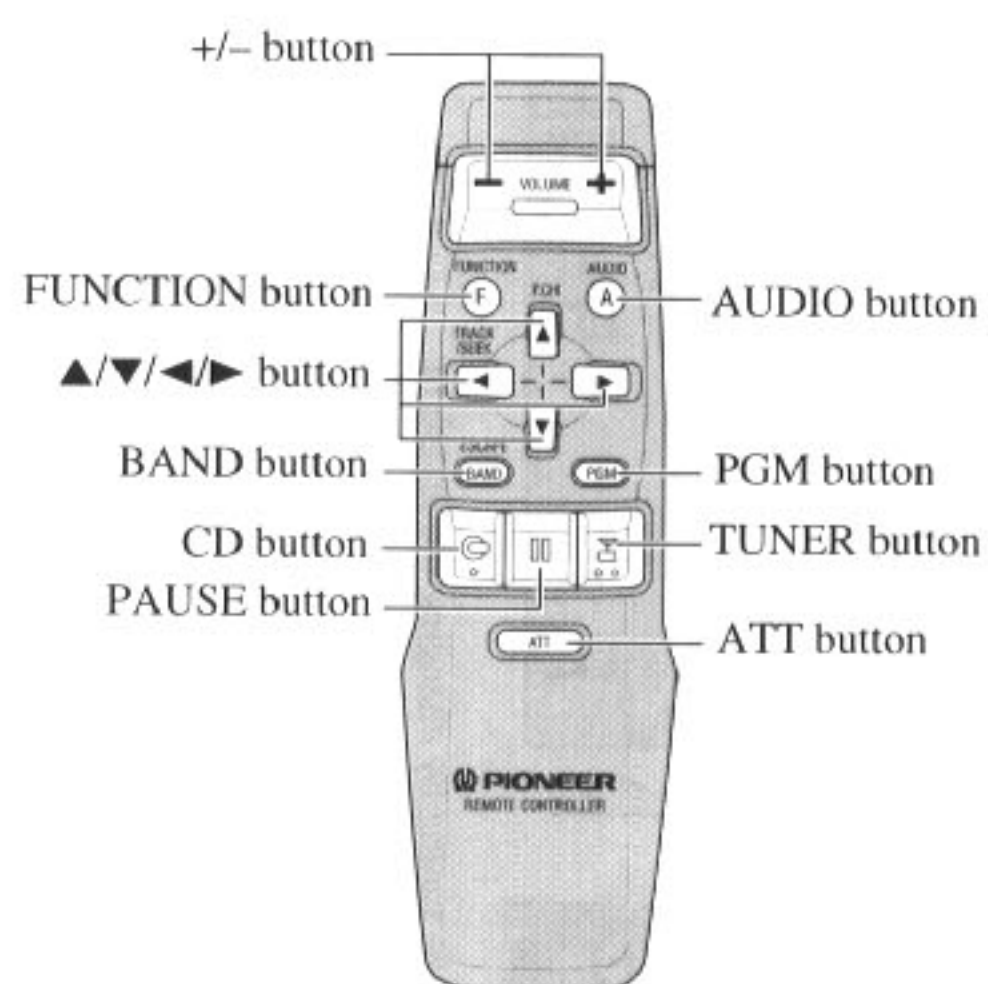
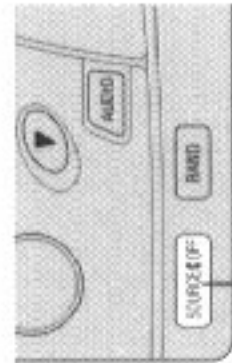


Fig. 36

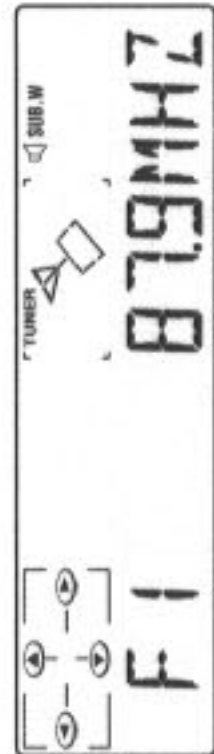
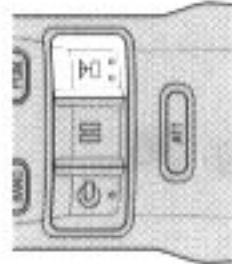
Tuner Operation

Basic Operation of Tuner

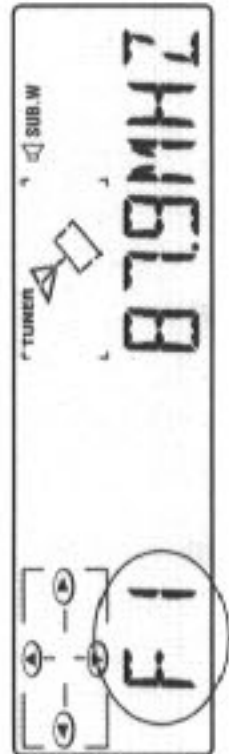
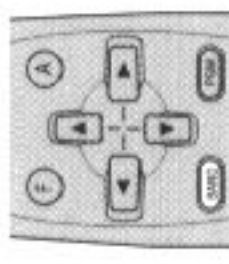
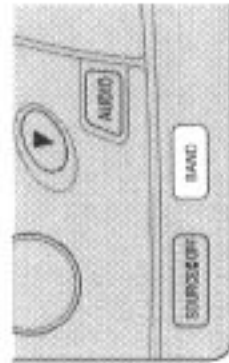
1. Select Tuner.



Each press changes the Source ...

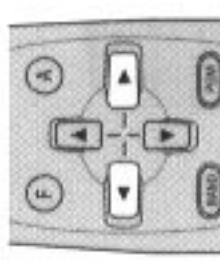
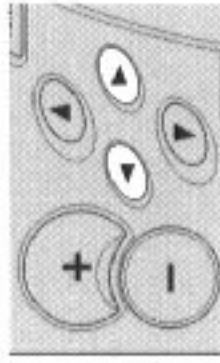


2. Select the desired band.



F1 → F2 → F3 → AM

3. Tune the receiver to a higher or lower frequency.



This product's tuner lets you select the tuning by changing the length of the time you press the button.

Manual Tuning (step by step)	0.3 seconds or less
Seek Tuning (automatically)	0.3 – 2 seconds
Manual Tuning (continuously)	2 seconds or more

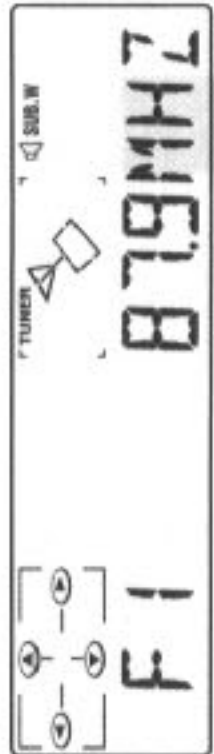
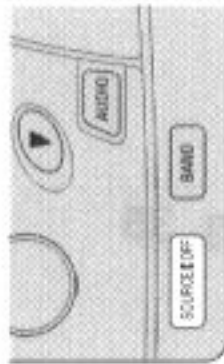
Note:

- "CD" indicator lights when a stereo station is selected.
- "RDS" indicator lights when a RDS station is selected.

Basic Operation

Switching Power ON/OFF

- Select the desired source (such as the tuner).



Head Unit:

Each press of the SOURCE button selects the desired source in the following order:

Built-in CD player → Tuner → Multi-CD player → AUX

To switch the sources OFF, hold down the SOURCE button for 1 second or more.

Remote Controller:

Each press of the CD button selects the desired source in the following order:

Built-in CD player → Multi-CD player → Sources OFF

Each press of the TUNER button selects the desired source in the following order:

Tuner → Sources OFF

Note:

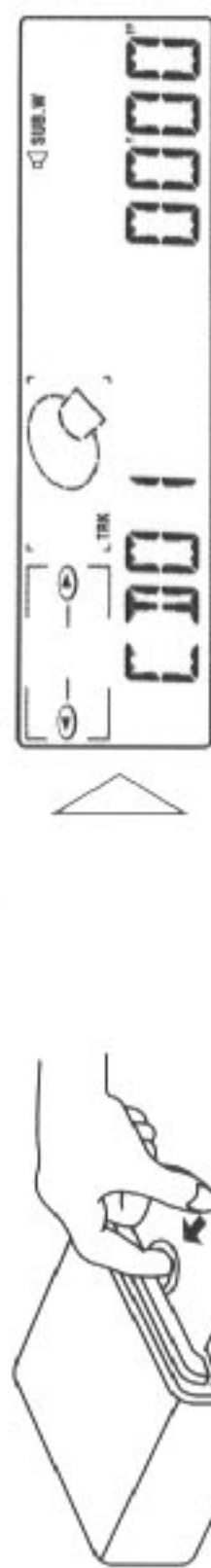
- In the following cases, the sound source will not change:
 - * No disc is set in this unit.
 - * No Multi-CD player is connected to this unit. (When "M-CD" display is OFF.
 - * No magazine is set in the Multi-CD player.
 - * AUX (external input) is set to OFF.

Using the Built-in CD Player

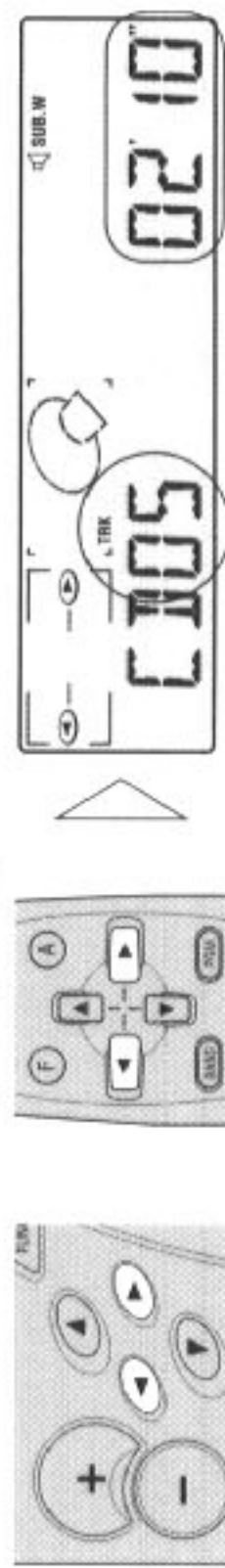
Basic Operation of Built-in CD Player

The built-in CD player plays one standard 12 cm or 8 cm (single) CD at a time. Do not use an adapter when playing 8 cm CD.

1. Insert the disc with the recorded (iridescent) surface down.



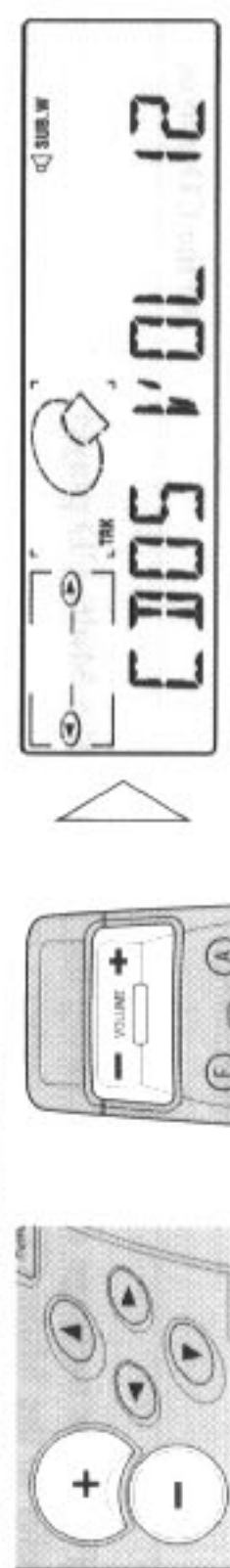
2. Select the desired track (and phrase).



This product's built-in CD player lets you select the track search function or fast-forward/reverse function by changing the length of the time you press the button.

Track Search	0.5 seconds or less
Fast-forward/Reverse	Continue pressing

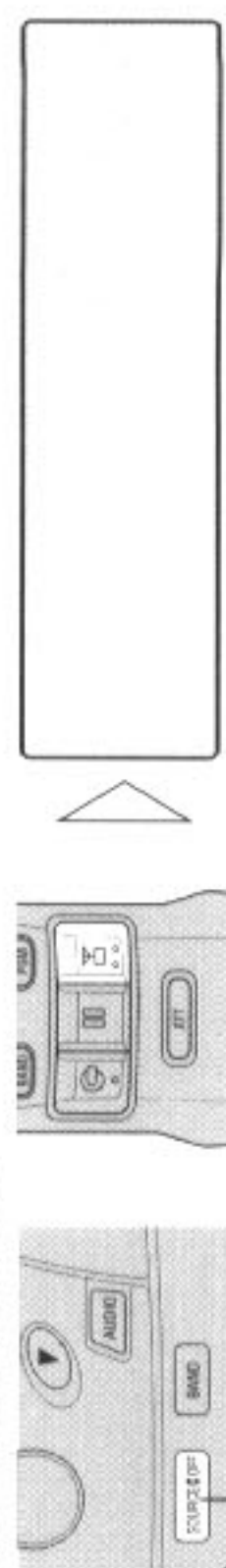
3. Raise or lower the volume.



4. Raise or lower the volume.



5. Turn the source OFF.

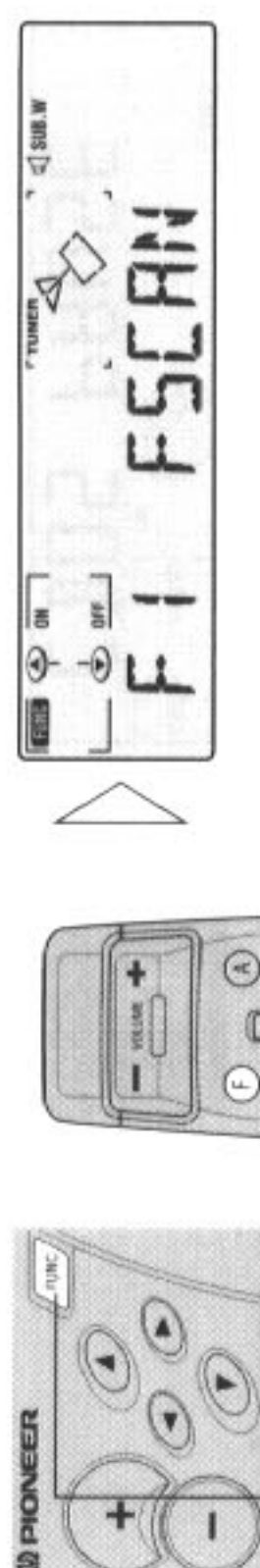


Hold for 1 second

Entering the Function Menu

In this menu you can select tuner functions.

- Select the desired mode in Function Menu.



Each press changes the Mode ... Each press changes the Mode ...

Each press of the FUNCTION button selects the mode in the following order:

FSCAN → FBSM → APF → MULTI-ST → LOC → TA → SEEK SEL
To cancel the Function Menu, press the BAND button.

Note:

- In modes other than LOC, you can use RDS/ID LOGIC functions. Refer to "Using RDS/ID LOGIC" for details and instructions on how to use these functions.
- During AM reception, you cannot switch to the TA mode.
- After entering the Function Menu, if you do not perform an operation within about 30 seconds, the Function Menu is automatically canceled.

Built-in CD Player Troubleshooting

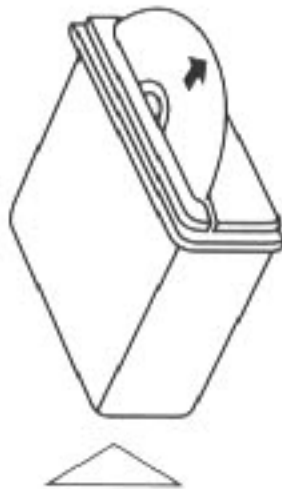
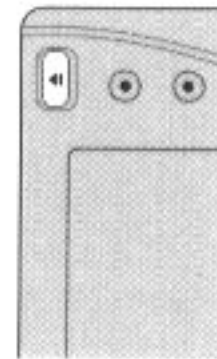
Error Message

When problems occur with CD playback, an error message appears on the display. Refer to the table below to identify the problem, then take the suggested corrective action. If the error persists, contact your dealer or your nearest PIONEER Service Center.

Message	Possible cause	Recommended action
ERROR- 11, 12,17, 30	Dirty disc.	Clean the disc.
ERROR- 11, 12, 17, 30	Scratched disc.	Replace the disc.
ERROR- 14	Unrecorded CD.	Check the disc.
ERROR- 10, 11,12, 14 17, 30, A0	Electrical or mechanical or problem. then back	Turn the ignition ON and OFF switch to a different source, to the CD player.

If an error message appears during the playback of a Multi-CD player, refer to the Multi-CD player owner's manual.

4. Remove the disc.

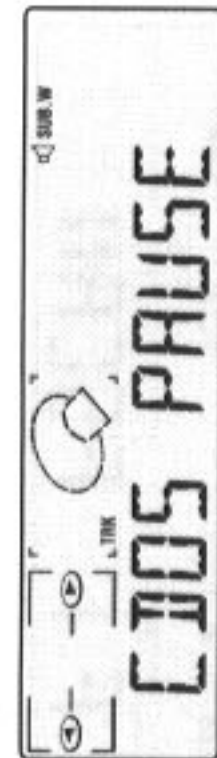


Note:

- The CD function can be turned ON/OFF with the disc remaining in this product. (See Page 8.)
- Discs left partially inserted after ejection may incur damage or fall out.
- If a disc cannot be inserted fully or playback fails, make sure the recorded side is down, push the EJECT button and check the disc for damage before reinserting it.
- If a CD is inserted with the recorded side up, it will be ejected automatically after a few moments.
- If the built-in CD player cannot operate properly, an error message (such as "ERROR-14") appears on the display. Refer to "Built-in CD Player Troubleshooting".

Pause

- Stops playback temporarily or restarts the system.



Note:

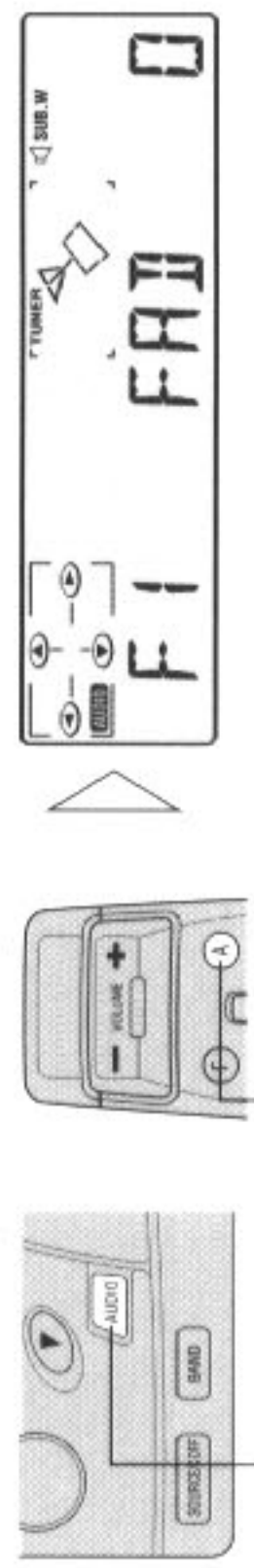
- You can also switch the Pause Function ON/OFF in the Function Menu.

Audio adjustment

Entering the Audio Menu

In this menu, you can adjust sound quality such as fader/balance, bass/treble and sub-woofer settings.

- Select the mode you want to adjust in Audio Menu.



Each press
changes the Mode ...

Each press
changes the Mode ...

Each press of the AUDIO button selects the mode in the following order:

FAD → BAS → TRE → LOUD → SUB.W → (80HZ 0) → FIE

To cancel the Audio Menu, press the BAND button.

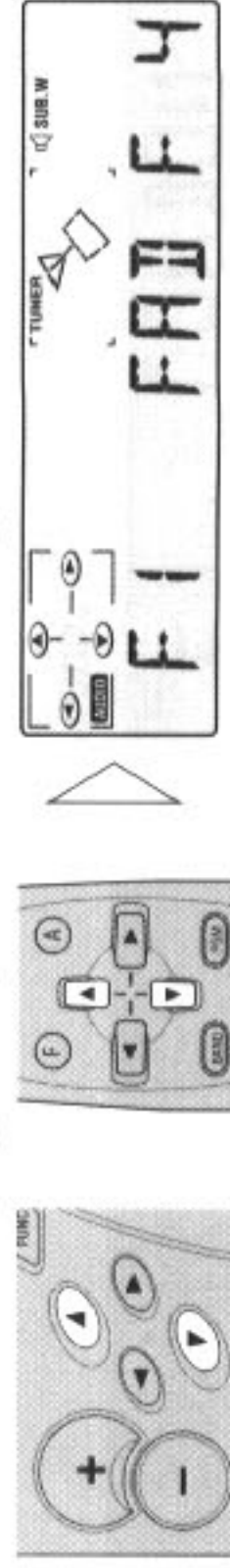
Note:

- You can select the "80HZ 0" mode only when sub-woofer output is switched ON in the SUB.W mode. Initially, sub-woofer output is ON.
- After entering the Audio Menu, if you do not perform an operation within 30 seconds, the Audio Menu is automatically canceled.

Balance Adjustment

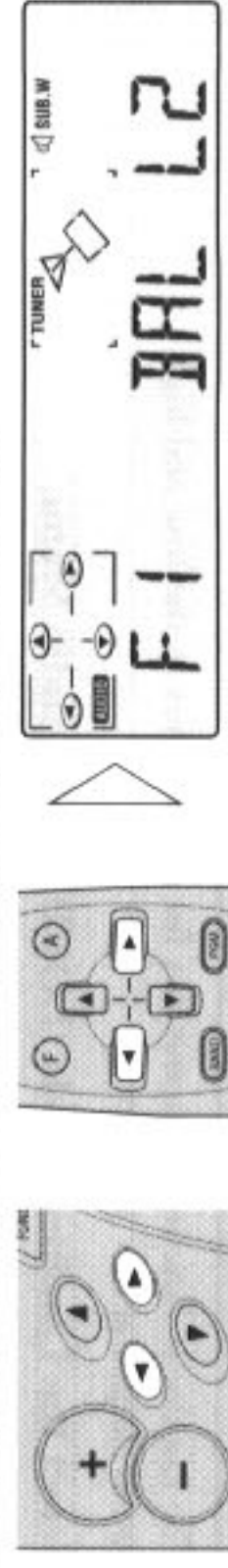
This function allows you to select a Fader/Balance setting that provides ideal listening conditions in all occupied seats.

1. Select the Fader/Balance mode (FAD) in the Audio Menu.
2. Shift the balance progressively to the front or rear speakers.



"FAD F15" – "FAD R15" is displayed as it moves from front to rear.

3. Shift the balance to the left or right speaker, respectively.



"BAL L9" – "BAL R9" is displayed as it moves from left to right.

To cancel the Audio Menu, press the BAND button.

Note:

- "FAD 0" is the proper setting when 2 speakers are in use.

Specifications

General

Power source	14.4 V DC (10.8 – 15.1 V allowable)
Grounding system	Negative type
Max. current consumption	8.0 A
Dimensions	
(mounting size)	198 (W) × 78 (H) × 135 (D) mm [7-3/4 (W) × 3-1/8 (H) × 5-3/8 (D) in.]
(nose)	190 (W) × 62 (H) × 21 (D) mm [7-1/2 (W) × 2-1/2 (H) × 7/8 (D) in.]
Weight	2.1 kg (4.6 lbs)

Amplifier

Continuous power output	17 W per channel min. into 4 ohms, both channels driven 50 to 15,000 Hz with no more than 5% THD.
Maximum power output	35 W × 4
Load impedance	4 Ω (4 – 8 Ω allowable)
Preout output level/output impedance	500 mV/1 kΩ
Sub-woofer output (DEH-P85DHR)	
Crossover frequency	50 Hz, 80 Hz, 125 Hz
Crossover slope	–12 dB/oct

Tone controls

(Bass)	±12 dB (100 Hz)
(Treble)	±12 dB (10 kHz)
Loudness contour	+10 dB (100 Hz), +6.5 dB (10 kHz) (volume: –30 dB)

CD player

System	Compact disc audio system
Usable discs	Compact disc
Signal format	Sampling frequency: 44.1 kHz Number of quantization bits: 16; linear
Frequency characteristics	5 – 20,000 Hz (±1 dB)
Signal-to-noise ratio	94 dB (1 kHz) (IHF-A network)
Dynamic range	90 dB (1 kHz)
Number of channels	2 (stereo)

FM tuner

Frequency range	87.9 – 107.9 MHz
Usable sensitivity	11 dBf (1.0 μV/75 Ω, mono, S/N: 30 dB)
50 dB quieting sensitivity	16 dBf (1.7 μV/75 Ω, mono)
Signal-to-noise ratio	70 dB (IHF-A network)
Distortion	0.3% (at 65 dBf, 1 kHz, stereo)
Frequency response	30 – 15,000 Hz (±3 dB)
Stereo separation	40 dB (at 65 dBf, 1 kHz)
Selectivity	70 dB (2ACA)
Three-signal intermodulation (desired signal level)	50 dBf
(two undesired signal level: 110 dBf)	

AM tuner

Frequency range	530 – 1,710 kHz
Usable sensitivity	18 μV (25 dB) (S/N: 20 dB)
Selectivity	50 dB (±10 kHz)

Note:

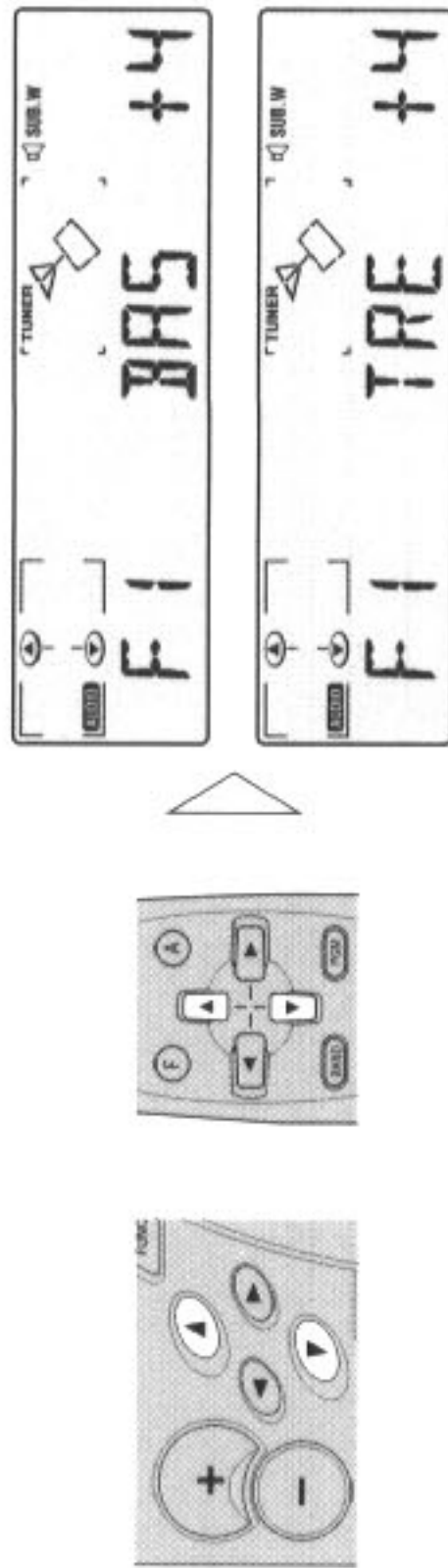
- Specifications and the design are subject to possible modification without notice due to improvements.

Audio adjustment

Bass/Treble Adjustment

This product is equipped with two tone adjustment modes, the Bass (BAS) and Treble (TRE) modes.

1. Select **bass mode (BAS)** or **treble mode (TRE)** in the Audio Menu.
2. Increase or decrease the intensity of the bass or treble, whichever is selected.



The display shows “+6” – “–6”.

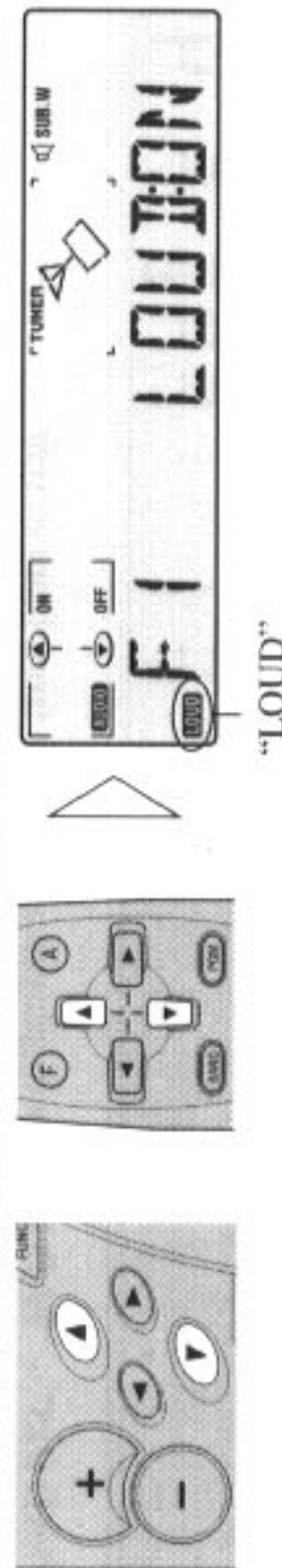
3. Repeat steps 1 – 2 above for the other Bass or Treble adjustment.

To cancel the Audio Menu, press the BAND button.

Loudness Adjustment

The Loudness function compensates for deficiencies in the low and high sound ranges at low volume.

1. Select the **Loudness mode (LOUD)** in the Audio Menu.
2. Switch the Loudness function ON or OFF.



To cancel the Audio Menu, press the BAND button.

Connection Diagram

